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Clinical Medicine

★ Editorial ★

Charcot

Greatest of French Neurologists

MANY of the world's greatest physicians have been unusually versatile men, and some have been one-track workers. Jean-Martin Charcot was in the former group—not only the greatest of French neurologists, but also a remarkable organizer and teacher; an artist of parts; and a well rounded and capable physician and human being.

Charcot was born in Paris, in 1825, and records of his early life and schooling are meager. He took his medical degree, in Paris, in 1853, with a thesis on arthritis nodosa; was appointed physician to the Central Bureau of Hospitals in 1856; and became physician to the great hospital of the Salpêtrière, with which his name will always be associated, in 1862.

In this hospital, he built up, from practically nothing, the greatest neurologic clinic of modern times. Students came in flocks, from all over the world, to take advantage of his astonishing lessons in the *visualization* of nervous disorders, for his clinics were unique. Having no motion pictures nor lantern slides to lean upon (as so many do now), he demonstrated his cases in a miniature theater, with footlights, side lights, and spot lights, so that all details of their behavior were brought out clearly, while the Master stood at the side of the stage and described them, slowly and clearly, so that no feature might be overlooked. If necessary for clarity, he mimicked the various gaits, tremors, tics, spasms, and constrained postures, in person. As soon as the patient left the stage, a diagram of the lesion and its location would be thrown upon the screen at the back, so as to fix the lesson indelibly in the minds of his students. No wonder his classes were crowded!

In 1873 he became professor of pathologic anatomy in the faculty of medicine of Paris, and in 1882, professor of diseases of the nervous system—a position which was created especially for him, and which he occupied until his death, in 1893.

In addition to his oral teaching, he wrote voluminously, not only upon nervous diseases, but on general medicine. His treatises on senile and chronic diseases (1867) and on diseases of the liver, biliary passages, and kidneys (1877) are still classics. He left memorable descriptions of chronic pneumonia, gout, rheumatism, endocarditis, and tuberculosis. His researches were extensive and his name appears in connection with many matters. He located the essential lesions of locomotor ataxia and described its gastric crises and joint disorders (Charcot's disease); and no one has more graphically described the trophic troubles following brain and spinal cord injuries.

Charcot was a purely objective investigator, and had no patience with hypnotism (which he regarded as a neurotic condition, akin to hysteria) nor the purely psychologic approach, and hence no aptitude in these lines, though he was a pioneer in sound psychotherapy. His towering and impressive figure, his lofty bearing, and his cold, distant, and impersonal manner in taking a history, certainly had no tendency to "coddle" a neurotic patient; and his results justified his methods, at least in his hands.

As an artist, Charcot was the creator of the study of medical history in the graphic and plastic arts. With Paul Richter, he published monographs on demonomania in art (1877) and on deformity and disease in art (1889). His pupils contributed

valuably to the "New Photographic Iconography of the Salpêtrière" (1888-1918) — an unique, graphic presentation of the facies and habitus of nervous diseases.

In these days, when so many members of his specialty are running after conditions which exist mainly in the imaginations of the physicians who are pursuing them (especially among the Freudian psychoanalysts), it is well for us to turn our attention and study to the work of this truly great pioneer (whom some authorities rank with Hippocrates and Sydenham), and base our structures of neurology upon the imperishable foundations which he laid.

Some men grow under responsibility; others only swell. —*Readers Digest.*

The Cause of Goiter

IN reading the article by Dr. Houda, in this issue, several points should be kept in mind:

First, he does not state, or even *suggest*, that the microorganism, which he has discovered and verified as the cause of *goiter*, is or should be the cause of *cancer in general*.

Second, he does not suggest that this micrococcus is the direct or proximate cause of *thyroid cancer*, but merely that it is the initiator of the *basic lesion* (in this case, in the thyroid gland) which, in some form, always precedes cancer, wherever it may occur.

Third, he does not recommend his vaccine as a treatment for thyroid *cancer*, but merely as a prophylactic, to be used *before* the thyroid lesion becomes malignant.

Fourth, he does not recommend that his vaccine be universally used to replace surgery, in advanced cases of neglected goiter, but merely that it offers a safe, effective, and reliable method of *preparing* a patient for partial or total thyroidectomy, and a helpful agent in the postoperative follow-up treatment of such cases.

In previous communications, Dr. Houda has stated that the search for a *universal* microorganic cause of *cancer in general* (a carcinogenic microbe) still appears chimerical; but that the discovery that *thyroid* cancer always follows goiter, a specific cause for which has been found and confirmed by other workers, suggests that the primary, benign lesions, which always precede cancer in other organs, *may* also have microorganic causes, each specific for the particular tissues in which the malignant condition develops.

On the basis of the extensive and painstaking work that Dr. Houda has done, over a period of years, his suggestions appear so modest and so reasonable that they are entitled to be investigated, thoroughly and *with an open mind*, by those whose laboratory and clinical facilities are more extensive than he is able to command.

The Doctor's basic premises, and his conclusions thereon, may be valid or inaccurate, but they are *not negligible*, and those who attempt to question or minimize his accomplishments should be armed with the results of an amount of sincere and *honest* study of this problem, along the lines he suggests, equal to that on which his statements are based.

"Nothing save the impossible is really worth doing or attempting."—Teachings of a Master.

Clinical Medicine

WHEN one is graduated from a medical school in the United States, one receives the degree, Doctor of Medicine, which implies that the recipient is qualified (at least in a rudimentary way) to practice, not merely what is now included in the specialty of internal medicine, but *all* branches of the healing art—surgery (the "shingles" of most physicians in the smaller communities read "Physician and Surgeon"), obstetrics, urology, laboratory work, physical therapy, proctology, and all the other arts and technics which are more highly developed in the various specialties.

If all of these qualifications were included in the title of the physician, it would be so complex and cumbersome that few would even attempt to remember it, but practically all adults understand the implications of the short and familiar "Doctor."

Those who are entitled to write "M.D." after their names are, however, divided into two distinct classes: the *clinicians*, who actually treat patients; and the miscellaneous group who do not—the laboratory men, researchers, sanitarians, teachers of the basic sciences, etc. Furthermore, the clinicians are again divided into two classes: the *general practitioners*, who discharge all of the simpler and traditional functions of the physician in a way that is adequate for the needs of 90 percent of the patients who consult them; and the *specialists*, whose proper function, by virtue of their extensive and specified training, should be to look after the other 10 percent of patients, when these are referred to them by general clinicians who recognize their own limitations.

The particular function of this magazine has always been to offer *practical*, up-to-date assistance to clinicians, especially *general clinicians*, and the name, CLINICAL MEDICINE, expressed that function clearly and succinctly; but some years ago, the consensus of those who were responsible for the policy of the magazine was that, since we published many articles on surgical subjects, that fact should be made obvious in its name, so "AND SURGERY" was added, and has been retained up to this time.

That name has, however, always been somewhat cumbersome, in speech and writing, and most of our old and loyal readers have continued to use the old name.

Now we have decided that the longer designation is not only clumsy, but also pleonastic, and we have reverted to the shorter and simpler traditional one, with the assurance that no one will misunderstand its significance—the presentation of *all* types of information which will be of *direct*

service to those who are engaged in the *clinical practice* of *all* of the various arts and sciences embraced by the grand and glorious word, *Medicine.*

Our *policy* is unchanged, and the only change in our *practice* will be the constant endeavor to give our readers more and more helpful information, presented in a more and more pleasing and instructive manner. In these efforts, we eagerly welcome the suggestions and assistance of all members of the "family" of our readers, to the end that we may make it just the sort of medium for the exchange of ideas that they *want* it to be, in order to help them develop into better and more successful healers and more efficient and joyous human beings.

True eloquence consists in saying all that should be said, and that only.—La Rochefoucauld.

Antirabies Vaccines

In a recent, undated, mimeographed report from the Rockefeller Institute for Medical Research, New York City, Dr. Leslie T. Webster states that the phenolized antirabies vaccines, prepared by Fermi's method, now in wide use in this country, are totally worthless for immunization against that disease; but he recommends a certain chloroformized vaccine as being potent. The experiments on which this opinion is based were made on mice and dogs.

Since it is well known that, when rabies actually develops, the mortality is 100 percent, the figures presented in the *Quarterly Bulletin* of the Health Organization of the League of Nations, Vol. I, No. 3, 1932, on pages 136 and 140, are significant.

Summarizing reports submitted by antirabies institutes throughout the world, covering 69,707 cases treated prophylactically, the death rate among all cases so treated (including the use of live and killed vaccines) was 0.5 percent; where the live vaccine was used it was 0.25 percent. Among these patients, paralytic accidents following the treatment were recorded in 6 cases (1 in 11,618 cases). A few other such accidents have, however, been reported in the literature, but the number is practically negligible. Among the 3,974 cases treated by Fermi's method (using killed carbolized vaccine) there were no deaths, although out of about 2,000 of biting animals which were examined, 1,200 were found positively infected with rabies. On the basis of Hodges' statement (*Am. J. Clin. Pathol.*, May, 1935), that only 20 percent of patients bitten by rabid animals develop rabies, there should have been *at least* 240 deaths in this series, if Fermi's vaccine did not provide immunity.

Since Dr. Webster's statements seemed far out of line with the consensus, we made a rather careful study of the available literature (including the list of references accompanying an article of his in the *American Journal of Hygiene* for November, 1934), and found that only *one* article confirming these statements had appeared in an American medical periodical—*and that was by Dr. Webster, himself* (*New Eng. J. of M.*, Oct. 28, 1937). There were, however, in the bibliography just mentioned, several references to foreign (chiefly Indian) medical magazines and several to the *Journal of the American Veterinary Medical Association*, which may have done so. We have not studied the articles referred to.

On the other hand, Lepine and Soutter (*Ann. Inst. Pasteur*, July, 1937) state:

"At present, more than half the patients bitten by mad dogs are treated with phenolized vaccines. The mortality is lowest when killed vaccines are used. . . Rabbits vaccinated with desiccated spinal cord (live virus) were protected in 35 percent of cases. Rabbits vaccinated with phenolized vaccines were protected in 61.7 percent of cases. . . . The most efficient antirabic vaccine is the one prepared according to Fermi's formula."

On this basis, it would appear that perhaps Dr. Webster, working in all sincerity, may have reached erroneous conclusions, or perhaps he was seeking a bit of notoriety. In any case, there seems to be sufficiently sound basis for our present practice in these cases to justify us in continuing to use killed phenolized vaccines.

NEXT MONTH

Dr. Irwin W. Friedberg, of New York City, will report the results of some controlled studies of the clinical effectiveness of unfortified hydrogel in chronic constipation.

Dr. Isidore Zweigel, of Newark, N. J., will discuss the treatment of chronic leg ulcers and his results with the local use of an antiseptic solution, to control secondary infection.

Dr. Paul Lahvis, of Gowanda, N. Y., will outline the present status of the injection treatment of hernia, with comparative statistics and suggestions.

COMING SOON

"Adrenal Cortex by Mouth for the Tired Patient." by R. L. Gorrell, M.D., B.S.M., Clarion, Iowa.

"Body Chemistry in Surgery." by G. Carlyle Cooke, M.D., F.A.C.S., Winston-Salem, N. C.

★ *Leading Articles* ★

Common Denominators of Goiter and Thyroid Cancer

By

EMILIAN O. HOUDA, M.D., Tacoma, Wash.

Dr. Houda

The work of Dr. Houda, in isolating and verifying the specificity of a microorganic cause of goiter (which might appropriately be called Micrococcus goitrogenes, or Houda's micrococcus), and in preparing from it an effective therapeutic vaccine, deserves far more attention than it is now receiving.

In this article, the Doctor briefly sketches the scientific connotations of his research work, and reports, in detail, several cases of goiter successfully treated with his vaccine.

MICROBES are proved to be the actual cause of goiter, having been revealed and repeatedly verified by technologic procedures that lie within the sphere of the science of microbiology. Since these are demonstrably present in specimens obtained from malignant growths of the thyroid gland, they are regarded as common denominators of all stages of thyroid disease, with thyroid cancer considered as the last phase in the degenerative course of long-unheeded thyroid enlargements.

The beginning of goiter is not known. Its onset is as insidious as is its last phase in thyroid cancer. However, there is no question, now, that goiter starts in normal thyroids, and that it subscribes fully to the most basic of natural laws—that of cause and effect. Thyroid cancer appears only after many years of thyroid disease, and because malignant disease does not make its first appearance in healthy flesh, it cannot be a specific disease wholly apart to itself. In all instances, the malignancy of cancer is but a late phase of the antecedent conditions in which it appears; and somewhere, in the course of antecedent non-malignant conditions, an indefinable stage or threshold exists. When cancer has developed, that threshold is long-passed.

I first observed goiter microbes in the year 1925. That year marks a period when the iodine-deficiency hypothesis was at its highest point, and was generally accepted as proved beyond question or doubt. After making repeated observations on goiter microbes, as occasion offered, my curiosity was aroused as to the possibility that this affliction might be of microorganic-origin. Many students have thought likewise. Specimens were collected from available sources, and over a period of three years more than 60 cultures were propagated from an equal number of removed goiters.

Believing that others might be interested in a series of these cultures, for their objective exhibition, I propagated them on agar slants in glass-sealed tubes, in which they retained their physical appearance for long periods of time. They could not dry out. They died in time, no doubt by reason of their own toxins.

Concurrently, extensive studies were made regarding the chemical rôle of iodine, both in normal and abnormal states of the thyroid gland. No proofs could be found that a lack of this element existed. On the contrary, more than normal thyroids require is actually absorbed from food, and the large part of even the lowest known intakes is eliminated after having been absorbed, appearing in the kidney excretions. In fact, a lack of this element, for all normal needs, is utterly impossible. After weighing available data against the requirements of normal thyroid chemistry, the conclusion was reached that a natural excess accounts for the increased metabolism which is peculiar to toxic goiters. Also, as generated by sick thyroids, that excessive thyroxin requires and utilizes some of the natural excess of this element. Moreover, the symptoms of hyperthyroidism appear only when thyroids are infected with goiter microbes.

Coincidentally with these studies, particularly since proofs regarding iodine could not be found, the routine propagation of microbes from goiter raised cumulative doubts on whether this element could play more than an incidental rôle. At the same time, I was as willing to show that microbes were not primary factors. Further proofs were necessary, and they soon followed, taking the normal course which proofs require. While now convinced that microbes are the underlying factors of this affliction, I remain open to accept proofs to the contrary.

Specific Microorganisms

My first article on goiter microbes was published in *Northwest Medicine*, in the May issue of 1928, under the title, "The Bacterial Factor in Goiter." The second appeared two months later, in the same publication, under the title, "Microbes from Goiter," in which technologic procedures were described.

In the summer of 1930, by courtesy of Prof. F. de Quervain, of Berne, Switzerland, more than 100 specimens of goitrous tissue obtained from Swiss goiters were personally studied. There was no notable difference between the cultures propagated in Switzerland and those cultivated in the Pacific Northwest. Since then, their propagation has been a matter of established routine; not for the purpose of verifying further what was proved

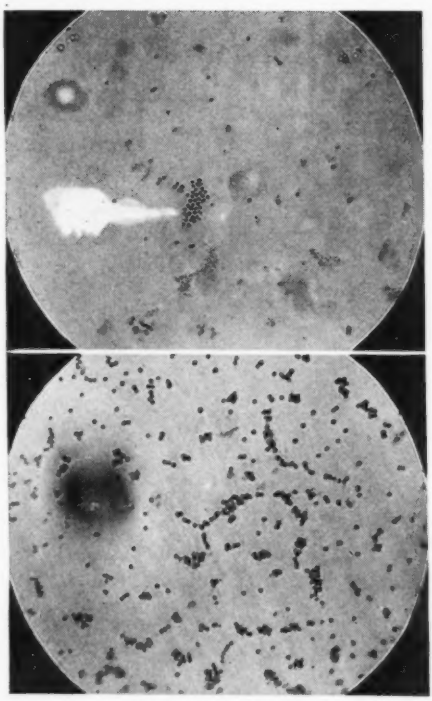

Fig. 1.— *Top*, organisms causing goiter, after 72 hours of incubation; *Below*, mature culture of the organisms, on agar.

a decade ago, but for the routine preparation of antigoiter vaccine, which has proved its value in the treatment of the active phases of thyroid disease from the first instance in which it was used.

In 1932, I wrote Dr. H. Warren Crowe, of London, England, after reading his work on rheumatism, in which he makes reference to the incidence of rheumatoid arthritis in those afflicted with goiter. In reply to an enquiry as to whether goiter microbes might be of interest to him, he replied that he would be interested in anything that might be said about them, and asked that cultures be sent to him. Instead of sending cultures, specimens were sent in glass-sealed tubes, asking that he grow primary cultures from the tissue itself. This he did. Several months later he wrote, "I am sure you will be pleased to hear that the rabbits into which I injected the cultures obtained from the incubated specimens received from you were found, in each case, to be suffering from an infection of the thyroid gland, and the same organism was recovered from the infected gland of one rabbit. I am pursuing the subject further and have cultured a number of goiters, finding the same organism in the large majority. This, so far, confirms your work."

Needless to state, I was pleased, particularly since my own experiments with rabbits and guinea pigs were thereby verified. Koch's postulates have been fulfilled: First, gram-positive micro-organisms are present in specimens obtained immediately on removal from the necks of goiter patients; second, they are propagated from consecutively removed goiters; third, their inoculation into rabbits and guinea pigs causes thyroid disease; and fourth, they are recovered from the infected glands of inoculated animals.

As a terminal phase of the goiter in which thyroid cancer develops, the factor of time in long-unheeded goiter must be considered in connection with the possible need of fulfilling Koch's postulates. Even this is not impossible, because repeated injections of micrococci propagated from human breast cancers are known to incite the development of cancer in the breasts of dogs. However, when viewed as the terminal phase of the antecedent non-malignant conditions in which malignant disease developed, there appears to be no good reason to carry Koch's postulates beyond the threshold that does exist between the two.

The chief difficulty in this work lay in the development of technologic procedures, but when these were worked out, and the routine propagation of first causes became an accomplished fact, the surmises that goiter might be of micro-organic origin, as expressed by many workers in the past, were proved to be correct.

The following case reports illustrate clearly the results obtained by the use of anti-goiter vaccine:

Case Reports

Case 1:—Mrs. H. S., age 65, a widow and the mother of four daughters also afflicted with enlarged thyroids, recited a history of an uncounted number of spontaneously interrupted pregnancies, including a number of stillbirths.

When first seen, this patient had many symptoms peculiar to toxic goiter, all of which were superimposed upon a non-toxic goiter of many years' duration, and immunization with anti-goiter vaccine was advised, in preparation for later surgical removal of a rather large growth. That advice was not followed. Word came, several weeks later, that she had had the goiter removed by a surgeon, after a week of pre-operative preparation with Lugol's solution, and that the operation was followed by a severe and alarming crisis, during which she lay in a comatose state for five days.

Nine months later she returned, disillusioned by the poor result obtained from the services rendered by the surgeon. She was in no condition to undergo a second operation. At no time after the first operation was the pulse rate lowered, and her general condition was not improved over what it was when she was first seen.

Iodine, which she had been taking faithfully for nine months, was ordered discontinued, and vaccine treatment was instituted for the first time, starting with two drops and gradually increased as tolerated. On the tenth day, when the fifth dose was administered, the pulse rate had dropped to 70 beats a minute. This immunization was continued for several weeks, each week showing progressively increasing improvement. The decision as to when the second operation would be done was left to her. There was no need of hurry, *as there never is with goiter.*

After six weeks of immunization, with injections administered in larger doses at 72-hour intervals, she announced a repeatedly deferred decision to have a previously untouched lobe re-

moved. Its removal was not followed by anything simulating the crisis after the first operation. She returned to her home on the fourth postoperative day. Cultures of the usual goiter micrococci were propagated from specimen obtained aseptically on removal from her neck.

Postoperative immunization with autogenous vaccine, over a period of two months, concluded the treatment of this patient. Six months later, thyroid extract was prescribed to correct symptoms of a lack of thyroid secretion.

One of the daughters has been treated in a similar manner, with end-results not so promptly nor so assuredly obtained without specific immunization against the common denominators of thyroid disease.

Case 2:—Mrs. L. B., age 40, presented herself with a mildly toxic goiter, but recurrent after two removals. The first removal of a large goiter was done at the early age of 17 years, following which she had a rather stormy convalescence, due, no doubt, to a postoperative reaction in the surgical field, during which she lost twenty pounds in weight during a two-week's stay in the hospital.

Not more than four months elapsed after the first operation, when everyone concerned with the case was convinced that the condition was recurring. The recurrent growth was rapid, reaching the full size of the original growth before many moons had passed, and was associated with just as acute symptoms.

Two years elapsed before the second operation was performed, as is usually the case, by another surgeon, who assured her that the growth would not return again. The second recurrence, due of course to the same causes as in the first instance, did not make its appearance until after a lapse of five years.

Over a period of nearly fifteen years, the recurrent growth consisted of two nodules, to the right of the median line of the neck. She eventually developed symptoms of thyroid disease, which were not intense enough to distinguish them as due to goiter. She had always been rather sensitive to iodine, avoiding it as much as possible because it made her more conscious of thyroid symptoms, but she recently partook of a blatantly advertised seafood, following which she promptly recognized the ill effects of its high iodine content, and as promptly discontinued its use.

As might be expected, she was adamantly opposed to further surgical interference. Not until she was fully satisfied that anti-goiter vaccine gave some new assurance against another recurrence (which satisfaction came after she obtained benefit from a few injections of the vaccine), did she consent to the third removal.

The superimposed lumps were removed readily, after two weeks of immunizing injections. There was no postoperative reaction, and she left the hospital after a stay of two days. Cultures were obtained from specimens obtained directly from her neck and vaccine was prepared of them and administered over a period of two months, when all symptoms had disappeared completely.

Case 3:—Mr. A. R., age 26, a printer, presented himself for treatment with an acutely active type of exophthalmic goiter. Both thyroid lobes were enlarged and of firm consistency. In spite of the use of Lugol's solution, which had been prescribed by another physician some weeks before, and which he was taking three times daily, he was on the verge of a thyrotoxic crisis. His pulse rate persisted around 160 beats a minute; his eyeballs protruded from their sockets; his eyelids were swollen, with extremely slow winking; and his facial expression was that of "frozen fright," in its classic form. No metabolic rate determination was necessary to verify a diagnosis of extremely toxic goiter and the need of care in preparation for later surgery. Anti-goiter immunization was instituted and iodine was discontinued.

Before two weeks elapsed, the pulse rate dropped to 90, the nervousness improved rapidly with rest in bed, and the weight improved.

After another week of vaccine immunization, he was sent to a hospital for surgical removal of the thyroid overgrowth. A restless night caused an increase in his pulse rate. Contrary to the opinion of a consultant called by another member of the family—that a course of Lugol's solution be given before surgical interference—orders were issued, *in bold print,* that no iodine was to be administered. *None was!* Another injection of anti-goiter vaccine was given.

The next morning the pulse rate had returned to 90, where it stayed until the fourth morning, when the enlarged thyroid was removed under local analgesia and light ethylene anesthesia. The operation was concluded without untoward incidents and there was no alarming reaction. The patient returned to his home on the fifth postoperative day.

A vaccine was prepared from the single strain of micrococci propagated from the tissue removed, and this was administered for eight weeks, at intervals of from 48 to 72 hours, thereby completing a cure which would not have been possible without specific immunization. Six years have now elapsed and he remains free of all symptoms. All that remains as evidence of past thyroid disease is a slight stare. The eyeballs have receded to their normal position.

Case 4:—Mr. H. J. W., age 54, a salesman, was forced to retire from active engagements because of ill health due to toxic goiter. From a best previous weight of 180 pounds, he was reduced to 142 pounds. He had considerable edema of the limbs. Attention was directed to the thyroid by the presence of all cardinal symptoms of exophthalmic goiter. Because of the rapid and very irregular heart action, he was judged as a poor surgical risk.

Anti-goiter vaccine was advised, was started on Nov. 17, 1935, and continued, by his family physician, throughout the months of December and January. Concurrently with this specific immunization, but not noted until after two weeks of injections had been administered, the pulse rate dropped to 80 beats a minute; the tremors disappeared; his weight increased slowly to 170 pounds in the course of six months. The patient believed himself cured, and refused to entertain the idea of surgical interference. *At no time was iodine administered.*

Case 5:—Mrs. Doris B., age 28, the mother of a 2½-year-old boy, presented herself for treatment of a toxic type of goiter, bordering upon a thyroid crisis. She was extremely nervous, complaining chiefly of precordial pain simulating anginal attacks. Her pulse rate hovered around 160.

After several weeks of anti-goiter immunization with stock vaccine, the goiter was removed without notable incidents, and she suffered no noteworthy postoperative reaction, returning to her home 72 hours after the operation.

At this writing (three weeks after the operation) she is continuing with further immunization with a vaccine prepared from the micrococci propagated from her own goitrous tissue. The earlier symptoms of active thyroid disease have almost disappeared. The pulse rate remains consistently below 100, and is expected to drop further before another month passes.

It seems to me that these reports (which are typical of many others) verify, clinically, the evidence produced in the laboratory, and are sufficient to constitute proof of the specificity of the organisms discussed in the etiology of goiter in all stages.

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An Improved Gastro-Enterostomy

By

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Most capable surgeons now consider the classical gastro-enterostomy as a makeshift or emergency operation, which is rarely recommendable.

Before fully accepting this dictum, however, read Dr. Seifert's description (with diagrams) of his new operation, which looks entirely rational, and has proved highly successful.

ONE of the fundamental rules of surgery is avoidance of the creation of artificial conditions: In other words, to make "mended" organs comply as closely as possible with their normal structural and functional patterns.

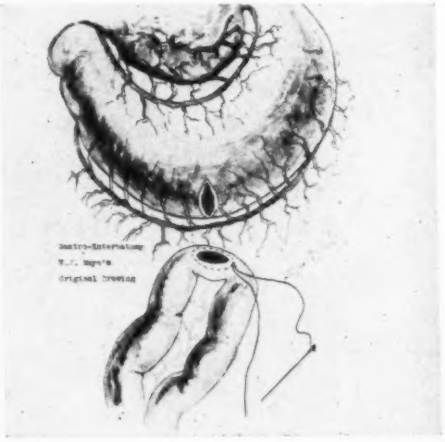

Fig. 1:—Diagram of "classical" gastro-enterostomy.

In the correction of a pyloric ulcer, artificial conditions must be created, as the object of the operation is to prevent irritation of the ulcerated areas by food or fluid passing over them. In creating such artificial conditions, the technic about to be described is planned in such a manner as to allow the stomach to imitate nature as closely as possible after the repair has been consummated.

This gastro-jejunostomy, indicated in uncomplicated cases, is undertaken for the relief or cure of pyloric or duodenal ulcer or obstruction, and practically retains the stomach's normal anatomic relations and physiologic activities. It has produced excellent results in more than 200 cases, over a period of twenty years.

The functions of the stomach are: the manufacturing of digestive fluids (pepsin, hydrochloric acid); the mixing of these fluids with the foods ingested; the churning of this mass, in order to aid its digestion; and the propelling of the pabulum so produced, onward into the enteric canal.

Body-habit often is as formidable an entity to cope with as is morbid anatomy. Remembering this, one can readily understand that hunger and the ingestion of food stimulate gastric secretions. These secretions find no normal use in the old gastro-enterostomies (see Fig. 1), and hence are liable to produce pernicious activities affecting the gastro-intestinal mucous membranes. In this new type of gastro-enterostomy, normal use is made of such secretions in the gastric receptacle created.

According to the principles just outlined, the customary gastro-enterostomy is incorrect, because

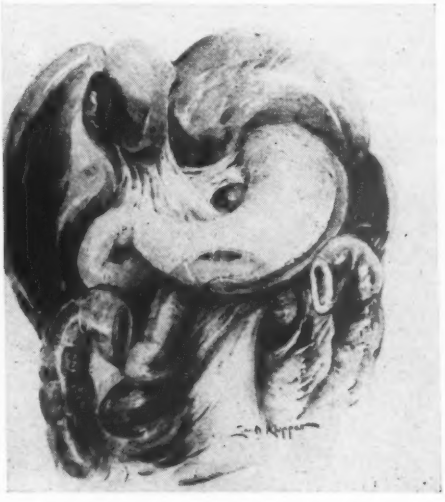

Fig. 2:—Location and relations of the stoma in the Seifert operation.

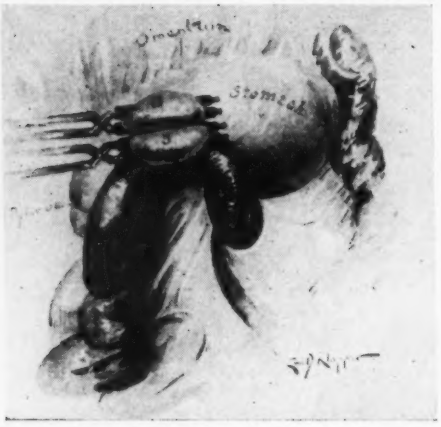

Fig. 3:—Approximation of the clamped stomach and jejunum preparatory to cutting stomas.

the food, when it reaches the stomach, is, by the laws of gravity and by the intention of the surgeon, immediately expelled into the enteric canal. An esophago-jejunostomy would do just as well, physiologically, as a gastro-jejunostomy which creates the anastomosis between the most dependent part of the stomach and the jejunum.

Objectionable Features of the "Classical" Gastro-Enterostomies

1.—When the opening is made in the lowermost border of the greater curvature of the stomach, it results in immediate emptying of the stomach after the ingestion of food, contrary to physiologic procedures.

2.—This premature expulsion of the gastric contents often causes a mechanical irritation in the lips of the artificial opening, which frequently results in acute inflammation, leading to complete closure of the new opening. This is obviated by the elliptical excision of the upper lip of the gastric stoma about to be described.

3.—Consequent upon the speedy expulsion of the gastric contents, absolutely no gastric digestion is possible; and whatever mixture of gastric fluid with the food occurs, is not physiologic, but is a mixture of food with the pathologic secretions from the ulcerous site, if this is not excised.

4.—The food ingested, not being mixed with gastric fluid nor at all altered by gastric activities, enters the small bowel, which is alkaline in reaction, in a condition inimical to the wellbeing of the intestine. This pabulum often acts as a decided irritant to the small intestine, frequently causing subsequent jejunal ulcerations, or other lesions.

5.—A "vicious circle" frequently follows the acute angulation of the bowel segment attached to the stomach in the "classical" gastro-enterostomies.

6.—The excursions of the most dependent part of the greater curvature of the stomach are greater than they are near the pylorus, which corresponds to its long axis; hence, the anastomosis and the jejunal loop would be under twice as much strain in the old as in the new operation.

Technic of New Operation

After special preparation and exposing the field of operation in the usual manner, the steps employed are:

First: The new gastric stoma is placed as close to, and as nearly on a level with, the pylorus as possible (see Fig. 2), its location being determined by careful examination of the stomach for diseased and normal areas.

Second: The rubber-covered stomach clamps are placed, with minimal pressure, parallel with the long axis of the organ, at the site decided upon.

Third: The jejunal loop is grasped far enough from the ligament of Treitz so that no undue traction will be produced on the stomach; and, its length is carefully calculated, in order to obviate the danger of a long, free loop lying loose in the abdomen. *Some gastric traction is essential.*

Fourth: A length of the jejunum, equal to that of the proposed new gastric stoma, is placed between the blades of the forceps and the two are approximated in the usual manner (see Fig. 3).

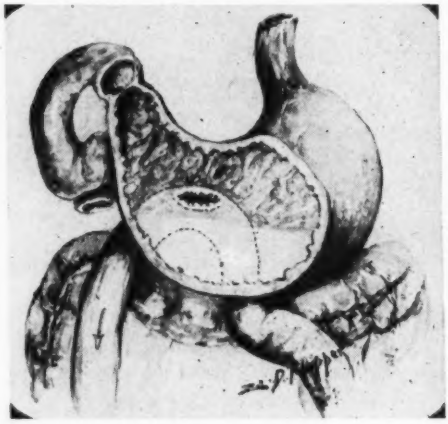

Fig. 4:—Diagram showing the craterlike, permanent stoma; the rounded jejunal loop; and the receptacle below the stoma, in which gastric digestion takes place.

Fifth: After opening and preparing both the gastric and intestinal stomas, a liberal elliptical piece is excised from the upper lip of the gastric stoma. This elliptical excision is undertaken for a threefold purpose: (1) It creates an actual, not merely a potential, opening, thus preventing friction of its edges by food when being forced out from the stomach into the intestine; (2) it produces a beautifully rounded jejunal loop when the anastomosis is completed, instead of the usual angular loop of the ordinary gastro-enterostomy; (3) this large opening, with the traction exerted by the jejunal loop, creates a crater-like gastric antrum leading to the new stoma (see Fig. 4).

Sixth: The anastomosis of the two stomas is now made by any of the accepted methods.

Favorable Features of this Technic

In support of the technic just described, the following points are enumerated:

1.—The stoma, being placed as nearly on a level with the pyloric opening as possible, practically retains normal anatomic relationships.

2.—A gastric receptacle is created for the mixing, churning, and digestion of food (see Fig. 4).

3.—The food, accordingly, being more or less acidulated by the gastric juices, is at least partially digested, and thus is physiologically better prepared for its reception in the alkaline small intestine.

4.—The stomach retains, at least partially, its protective function of emesis, which acts as a guardian of the intestines by throwing up obnoxious or irritating substances ingested.

5.—The mixing and churning of the food is followed by its expulsion into the jejunum through a crater-like gastric antrum leading to the stoma, which is nearly on a level with the pyloric opening, in a natural manner. Remember that the physiologic emptying of the stomach, after gastric digestion has been completed, proceeds from the body of the stomach upward and to the right, through the normal pyloric opening. These normal gastric habits are practically maintained, or at least closely imitated, following this technic, but are absolutely impossible following "classical" gastro-enterostomies.

6.—Adhering as closely as possible to the normal function of the stomach and of the small intestines conserves their physiologic activities and the histologic structure of the parts.

7.—The excision of a part of the upper labium of the gastric stoma insures its permanency; guards against unnecessary irritation of its lips which, in the usual operation, is often followed by complete closure of the anastomosis; and prevents the acute angulation that favors the production of the unfortunate "vicious circle" of the jejunal loop, so frequently noted after the "classical" gastro-enterostomies. In short, the creation of this mechanical desideratum encourages the stomach to continue its normal activities. (A careful examination of the Carlson-Luckhardt moving pictures of the gastro-intestinal canal during the act of digestion, shows the facility with which the contents would empty through this new opening, and also that less traction would be applied to the anastomotic area.)

8.—The resultant traction of the jejunum is sufficient to produce a crater-like gastric antrum leading into the new stoma.

9.—It favors the healing of an unexcised pyloric ulceration, and often results in the resumption of normal pyloric functions.

30 N. Michigan Ave.

Enzymes in Allergy

(With Emphasis on Protein Metabolism)

By

C. S. Bucher, M.D., Champaign, Ill.

With all the study that has been expended on allergy, it seems strange that the part enzymes play in these conditions is only recently being recognized. Dr. Bucher has summarized these relatively new ideas in a brief and practical way.

CHEMICALLY, enzymes are complex compounds capable of producing, by catalytic action, the transformation of some other compound or compounds, the enzyme itself remaining unchanged in this process.

The pancreas, with the aid of other active glands and cells, normally secretes a sufficient concentration of enzymes to combine with all foods ingested, plus an excess which passes free into the blood stream. Every normal cell in the body is thus protected against whole, unhydrolyzed foods. For the processes of normal digestion, metabolism, and intermediary metabolism, a large number of active enzymes, distributed to all tissues and cells, are required.

Physiologically, enzymes are divided into two groups, each having its specific functions.

1.—The physiologic properties of one group are to digest or hydrolyze ingested foods into their ultimate products; that is, carbohydrates into sugars; fats into fatty acids and glycerine; proteins into amino-acids. These end-products of digestion must be further acted upon before they become a part of living cells.

2.—The second group of enzymes have the physiologic properties of *deaminizing amino-acids*, converting them into protoplasm of living cells.

In the first group we have a set of digestive, hydrolyzing, or aminizing enzymes; in the second group, deaminizing or cell-building enzymes.

The Specificity of Enzymes

Each enzyme exerts its action only upon substances whose molecules have a certain definite structural and stereochemical arrangement. The enzymes that act upon the carbohydrates are not capable of affecting the proteins or fats, and vice-versa. The enzyme that acts upon maltose is not capable of affecting lactose. There is no evidence that any single enzyme can produce more than one kind of ferment action. During the process of hydrolysis, proteins are converted into proteose, peptones, and histamine, with several other changes, and finally to histidine and other amino-acids, of which there are 22.*

Today, in our medical literature, we are receiving reports on the treatment of allergy by the oral administration of *histaminase*, which is an enzyme with the specific action of converting histamine into histidine. Through this action the allergenic properties of partially digested proteins are lost. If the process of hydrolysis has not been completed to the stage of histamine, or amino-acids have not been deaminized into histamine, histaminase, as such, will not be effective, due to its specific action on histamine.

Unless there is some other side action, we cannot hope that this type of treatment will be effective in a large percent of cases, or will have a permanent or curative effect. It is substitution therapy. When discontinued, the original condition will soon return.

The highly specific nature of enzymes, their activation by other body products, the fact that they seem to be bound to the substance upon which

*A list of the amino-acids, and a table showing their percentages in various foods, appear, on page 242, in the July, 1940, issue of "C.M.&S."

they act, and that they produce immune bodies when injected into experimental animals, all suggest the probability of a relationship between enzymes, toxins, and allergens.

Normally the secretion of pancreatic juice is brought about by secretory fibres from the vagi and splanchnic nerves, and by secretin, a hormone, which is formed by the action of acid upon the prosecretin present in the mucous membrane of the duodenum. The action of secretin on the pancreas is through the circulation.

Tissue Enzymes: All cells contain enzymes, or enzymes are contained in the inner-cellular spaces, from which each cell receives the enzymes required for its constant metabolic changes. These enzymes have been spoken of as tissue and cell enzymes.

Serum Enzymes: If all hydrolysis would take place in the gastro-intestinal tract, there would be little need for an abundance of serum enzymes. My findings, and those of other investigators[1], are that (1) in normal blood serum there is always present an abundant supply of active enzymes, capable of digesting proteins, carbohydrates, and fats; (2) in food allergy there is usually, if not always, a low concentration of active serum enzymes; and (3) when the serum enzymes are increased to normal, either by substitution therapy or by being produced in the body itself, allergic manifestations subside, in some individuals, and remain less severe or absent as long as the serum enzymes remain at a normal level.

Normal serum always contains serum amylase, which hydrolyzes all starches; serum lipase, which splits all fats; and serum protease, which hydrolyzes proteins. In the normal person, these three enzymes are always found in definite and constant concentration, which is uninfluenced by taking in food, by sleep, or by exercise. Likewise, the serum enzymes are always found in parallel relative concentration. If one of them is present in a certain concentration, all are present in the same relative concentration. The normal concentration of serum amylase is 0.2, by the test suggested by Oelgoetz, Oelgoetz, and Whittekind.[2, 3]

Unhydrolyzed or incompletely hydrolyzed foods that enter the blood serum act as foreign substances, with allergic or toxic manifestations resulting. When completely hydrolyzed or split into their end-components, they become cell foods and are no longer capable of producing allergic or toxic symptoms.

Kenton,[4] in studying the rate of disappearance of crystalline egg albumen, introduced into the blood stream of each of 16 rabbits, 10 cubic centimeters of a one-per cent solution of crystalline egg albumen. Blood samples were taken at intervals thereafter, and the relative amount of albumen present was determined by precipitin titrations. The results of the study indicated that 90 percent of the total amount of egg albumen in the blood stream had disappeared from the circulation within the first hour after injection; 96 percent within two hours; and 99.76 percent within 24 hours. Kenton notes that this rapid rate of disappearance of crystalline albumen did not apply to other proteins, which seem to vary in their periods of retention in the blood stream. Great variation in the disappearance time of different kinds of proteins is to be expected when consideration is given to the variations of their digestibility, which is the principal, if not the only way, they leave the circulation.

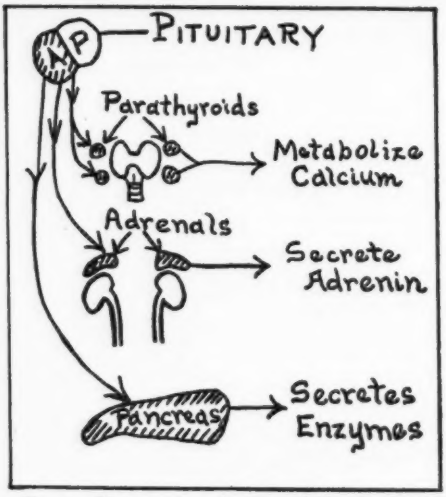

Fig. 1.—Diagram of endocrine activities involved in allergy.

The Pituitary Factors

It now becomes apparent that, when serum or tissue enzymes are maintained at a normal concentration, food allergy is less likely to occur than when they are present in greatly reduced concentration. Clinically, on many occasions, I have been able to raise a subnormal serum enzyme concentration to normal by injections of anterior pituitary extract. This rise is brought about principally by the presence of an active pancreatropic hormone, which increases the function of the pancreas in the production of enzymes.

There are other factors of the anterior pituitary (principally parathyrotropic), which take an important part in the treatment of the allergic patient. The parathyroids have the properties of metabolising and ionizing calcium; the adrenotropic factors cause the adrenals to increase the production of adrenin (epinephrine); and the affect of epinephrine in allergic patients is well known. The removal of the pituitary, in experimental animals, results in a state of hyperallergy, or anaphylaxis.

No attempt has been made to give a detailed description of hydrolyzing enzymes and their specific actions. I have endeavored, in this short paper, merely to emphasize the importance of enzymes in preventing allergic reactions, and to show how they may be increased.

Deaminizing or cell and tissue building enzymes are mentioned, but I believe that they do not produce or prevent allergic susceptibility or reactions and are not of major importance in the study of allergy.

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209 W. University Ave.

The Endocrines in Old Age*

By

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Why do we grow old? Dr. Achard here reviews the various theories regarding the cause and mechanism of senescence and discusses the part played by the endocrine glands in this process and the importance of the relatively undeveloped science of geriatrics.

IN 1910, Dr. Arnold Lorand of Carlsbad, Austria[1], described old age as a chronic disease due to the degeneration of the glands of internal secretion, in particular the thyroid, the sex glands, and the adrenals, and he maintained that this degeneration was amenable to treatment, just as are chronic diseases in general. William Held[2] believed that old age was due to cholin poisoning. John Tucker[3] assumed that faulty eating, especially foods lacking iron, vitamin B, and amino-acids, might encourage the degenerative changes in old age. On the other hand, William Berkeley[4] claimed that "at present there is no scientific knowledge that explains old age. It is one of the ultimate facts of biology." Before that time, however, different opinions had been expressed.

One interesting view was expressed by a German author, M. Schilainer[5], according to whom the hormones regulating and maintaining life are opposed by hormones that inhibit life processes. He calls them death-hormones.

Professor Aldred Scott Warthin[6] showed that, physiologically, old age is as much a period of life as are childhood, puberty, adolescence, etc. He called it the major involution and took the position that the organism, having fulfilled its function, which is that of procreation, was no longer of use to the species and that therefore it could be eliminated. He summed up the modern views as to the nature of the mechanism of the aging process (*l.c., p. 159*), finding that "they agree, in the main, that age is due to a loss of growth energy, so that the cell loss exceeds the regenerative powers, and numerical and quantitative atrophies ensue."

> "The senescent process is potent, therefore, from the very beginning and grows in volume and extent in proportion to just one thing, *the fulfillment of function* . . . . we may say that *age, the major involution, is due to the gradually weakening energy charge set in action by the moment of fertilization, and is dependent upon the potential fulfillment of function by the organism. The immortality of the germ plasm rests upon the renewal of this energy charge from generation to generation.*" (Italics in the original.)

Dr. Leonard Williams[7] claims that, unfortunately, *homo sapiens* has not yet learned to cultivate the *habit* of longevity. Williams sees the reason for the early breakdown of the human machine in our ignorance and neglect of dietetics, "with the result that a machine, intended to last for 120 years, shows serious signs of wear at fifty years of age, and may be confidently expected to peter out before seventy . . . ."

Marañón[8] offers the thesis that "the pathogenic mechanism of the climacteric symptom complex is not limited to insufficiency of the genital glands, as has been held, but is rather the expression of a complex endocrine crisis, which varies in different individuals. In this crisis, the outstanding feature is gonadal insufficiency, to be sure, but other glandular disturbances occur coincidentally and form an essential part of the crisis. Our knowledge concerning some of these various glandular disturbances is now fairly well established."

The Endocrine Factor

Berkeley questioned (*l.c., p. 352*) whether there is any primary influence to be attributed to the endocrines in the occurrence of old age, because replacement of the sex organs is far from causing a rejuvenation of the entire body. However, endocrine failure is a factor in *premature* old age (senilism).

In the opinion of Max A. Goldzieher[9] ". . . . general glandular failure must be considered as a cause of a subnormal nutritional state. The loss of adipose tissue in senility is the most common instance, which probably denotes the senile involution of the whole endocrine apparatus. Occasionally only one gland may be affected especially. . . . Thus senility often presents features suggestive of myxedema, which points to a predominance of the *thyroid* factor."

Hans Curschmann[10] asserts that *hyper*thyroidism, rather than *hypo*thyroidism, is a factor, in that Graves' disease is one of the most common endocrine disorders leading to early senescence. In his opinion, the conclusion at which Vermehren and Lorand arrived, identifying old age with chronic myxedema, is thoroughly onesided and erroneous. The peculiar fact that the hair of myxedematous patients usually retains its pigment until well into the seventies and does not turn gray, refutes the hypothyroidal theory of senescence. Other endocrine disorders besides Graves' disease, however, lead to premature old age. It has been observed in diseases of the adrenal cortex, though it certainly does not result from true Addison's disease. Many authors have published studies showing lowered metabolic rates in old people.

Several reported laboratory studies merely show that the *pituitary* can produce gonadotropic substance even in old age. Despite this fact, the ability to procreate is usually abolished after the climacterium.

The demonstration of the follicle-ripening and luteinizing hormones, in aging and old hypophyses, is of interest because Engelhart and Häusler have offered the hypothesis that the primary cause of the climacterium is to be found in changes in the pituit-

*Read at the October, 1939, meeting of the Endocrine Round Table of Los Angeles, California.

†This article embodies the strictly clinical section of a more exhaustive paper. The entire paper of 18 typewritten pages, including a bibliography of 26 references, as submitted by the author and without editorial revisions or corrections, is herewith published, with the assistance of the American Documentation Institute, c/o Offices of Science Service, 2101 Constitution Ave., Washington, D.C., as Document No. 1430, and may be procured by interested persons at a cost of 38c in microfilm form (see page 350 of this issue), or $2.00 in photoprint.

ary function. This assumption was based on the idea that, at the time of the climacteric, the hypophysis contains the follicle-ripening hormone but not the luteinizing hormone. This assumption has been disproved by Nürnberger, who concludes that the climacterium is not due alone to changes in the pituitary.

The Gonads: Romeis' detailed study of the literature leads him to conclude that the microscopic picture of the testis, even in very advanced age, does not show any far-reaching alterations, so the *testes* do not occupy the decisive central position in the development of senile manifestations which is attributed to them by many authors.

Of all incretory organs which have been associated with the development of senile changes, the *ovary* presents the most decided alterations. In no other organ is there normally such a complete atrophy of specific secretory parenchyma. Still, it cannot be said that, therefore, the old-age changes in women develop early. Excepting in the sexual sphere, a healthy woman does not present greater manifestations of age, either physical or mental, after the climacteric, than does a man of like age.

In human beings and animals, degenerative changes occur in the *adrenals* in old age, and it is quite possible that these changes are responsible for some of the symptoms of the senium, but there seems to be no clear proof that they are the *cause* of the aging process, as they may be merely one of its results.

Geriatrics

The treatment of disease in old men and women has been recognized as a special field of practice ever since Nascher published his excellent treatise, and was followed a few years later by Malford W. Thewlis[11]. According to Muller-Deham[12], in old age more different causes of disease may coexist than in the periods of adolescence and maturity, and from the standpoint of treatment, nursing care assumes greater importance than medicinal therapy. In old age, the general reactivity of the organism diminishes and medicaments may be less effective; for instance, pneumonia responds very much less to the high doses of quinine which are of service in the earlier periods of life. In administering digitalis, the difference between optimal and toxic effect is less. That does not justify any nihilistic resignation, and, especially in those diseases of old age in which functional changes in the endocrine glands appear in the foreground, careful study is called for.

In view of the close relations existing between hormones and vitamins, the vitamin metabolism in old patients should receive careful attention. According to Romeis, in so far as the alterations are a consequence of diminished functioning of a certain endocrine organ, the administration of the corresponding hormone may be helpful and, in favorable cases, the possibility must be considered that such an influence may be extended to other endocrine organs that are not immediately involved.

"Reactivation": For a number of years this moot problem has been much in the foreground, and occupies the minds of elderly patients, not excepting physicians themselves. It is regrettable that so much has been written in lay literature about this difficult subject, but it cannot be denied that much good has actually been accomplished, in especially favorable cases, by a suitable and carefully regulated therapy, having in view the reactivation, especially, of the gonads. That just as much attention should be paid to the other endocrine glands, especially the pituitary, adrenals, and thyroid, is self-evident. It should be insisted upon, in my opinion, that "reactivation" is *not rejuvenation,* and that even rejuvenation could never restore a degree of youth to any individual that would be below the age period he or she has attained. One simply cannot make a twenty-year-old out of a septuagenarian. But, under the most favorable conditions, it may be possible to give to the septuagenarian a degree of health and vigor that is commensurate with his years and possessed by a healthy person of his age. To promise more than that would be cruel and would necessarily lead to disappointment.

Aside from the testicular implantation, started by Brown-Sequard in the eighties, taken up by Frank G. Lydston in 1914, further developed by Leo Stanley, and then commercialized by Voronoff, some forms of treatment developed by Steinach and his pupils merit consideration, but it is not possible to go into that subject at this time. However, it may be proper to mention that the gonadal treatment of prostatism has been decidedly successful in the hands of many physicians, especially the members of the Cleveland Clinic. In French literature, also, some very striking reports have been published.

Deafness

It may be permissible to refer here to one of the debilities of old persons which causes much grief and the relief of which arouses profound gratitude. I refer to deafness. Not many years ago, physiologists and many physicians denied an endocrine influence in diseases of eyes, ears, nose, and throat. But Dr. Dana W. Drury, of the Evans Memorial[13], reported that, out of 44 cases of otosclerosis, 26 (59 percent) presented evidences of endocrine dysfunction which was brought into causal relationship to the otosclerosis by successful medication. One special case is mentioned: that of a woman twenty-eight years old who had been deaf for fifteen years, in whom ovarian therapy restored normal hearing in the course of three months' treatment.

This fact gains in interest by the present recognition of endocrine influence in diseases of the eye, ear, nose, and throat, not only by endocrinologists, but by students of these separate branches of medical practice. For instance, Dr. Franz Koch[14] refers to an earlier report, which he published in 1937, and in which he submitted three conclusions:

1.—That deafness and subjective tinnitus aurium in old age seem to be influenced by the cessation of gonad function.

2.—That treatment with gonad hormone, although empiric, is fully justified, and that no unfavorable effects could be noted.

3.—That hormone treatment exerts a favorable influence on the existing pathologic processes, in so far as the subjective ear noises soon diminish and even disappear; moreover, the ability to hear is distinctly increased.

In contrast to the negative attitude which was manifest only a little over ten years ago, it is interesting to find it stated now, as "a known fact," that the sensory organs show the consequences of hormonal deficiency more definitely than do other organs, being under the regulation of the most sensitive vegetative (neuro-humoral) correlation, so that the slightest variation in this correlation will give rise to functional disturbances. Difficulty in hearing, and sometimes complete deafness and tinnitus, are all complained of during and after the menopause, and following the menopause they may become intensified.

Koch employed various hormone preparations, both male and female gonad products, injected intramuscularly, in an attempt to reestablish a hormonal equilibrium in the body and to study its effect on the ear. Improvement, in twelve cases, was marked, suggesting that difficulty in hearing in old people (subjective disturbances and objective deafness) can be improved by hormone treatment.

In treatment it is necessary, even more in the old than in younger individuals, to remember that we are not treating the name or *diagnosis* of a condition, but the *patient* whose complaints we are investigating; that serious ailments should never be allowed to develop beyond the margin of safety; and that minor ailments should not be left untreated merely because the patient is old. In general, patients are more grateful for the relief of a minor, painful disability than for the successful treatment of something more serious but less distressing. It is well to remember, also, that the old may react differently to active medication than do patients in early or middle life, and in each case the individual responsiveness should be studied.

With regard to the use of endocrine preparations, what has been said about the futility of rejuvenation and even the difficulties of reactivation should be kept in mind; yet many times cautious endocrine therapy will add to the patient's comfort. My personal preference is for pluriglandular therapy, and I have seen combinations of testicular, pituitary, and thyroid substances in men, and corresponding preparations with ovarian substance in women, produce gratifying results. While these glandular substances are probably the most important ones, we may remember that adrenal insufficiency is by no means infrequent and that adrenal cortex has proved decidedly successful in clinical tests.

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Notes from the A.M.A. Meeting*

Part I

Reported by

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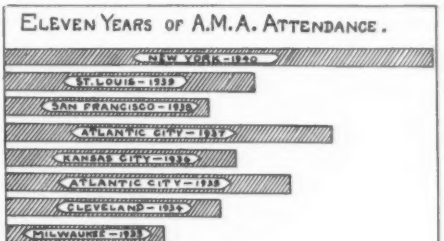
The physician who would keep abreast of the times in his profession must attend the important medical society meetings as frequently as possible. When he must miss them, direct, "eye-witness" reports of them are the next-best substitute.

Dr. Lake's long experience in reporting such meetings makes it possible for him to recognize and outline the new things that have developed, as he does in this article.

WHEN the announcement was made that the 91st annual session of the American Medical Association was to be held in New York City this year, I thought it would be a flop, because, although four previous sessions had been held there, the last was in 1917, and the Association has grown since then, so that I could think of no place in the metropolis where the scientific and technical exhibits could be adequately displayed, and it seemed obvious that the sessions would have to be widely scattered in various hotels.

The outcome proved that I was quite wrong. The Grand Central Palace, while inconvenient because the exhibits had to be spread over four floors, provided room enough, and every exhibitor with whom I talked was enthusiastic over the interest displayed; there were twelve first-class hotels within eight short blocks of the Palace—easy walking distance; and the attendance, to the best of my knowledge, was the largest in the history of the Association (12,785 physicians registered), partly, perhaps, because of the World's Fair which was in progress so near by. Moreover, the weather



*This is the first installment of a two-part article. The second part will appear in an early issue.

was well-nigh perfect, and a "delightful time was had by all."

The sessions, as well as the exhibits, were well attended. Several special society meetings and the third annual exhibition of the American Physicians' Art Association (which will be reported separately) were held concurrently. The usual social affairs went off smoothly. The House of Delegates ground out its usual grist of work, including the selection of Dr. Frank H. Lahey, of the Lahey Clinic, Boston, as the new president-elect, and Cleveland was designated as the place of next year's meeting, as previously announced. Dr. Chevalier Jackson was awarded the Distinguished Service Medal.

The Scientific Exhibit

The 42nd scientific exhibit of the A.M.A. (this feature was inaugurated at the Columbus, Ohio, session, in 1899, with an exhibit on pathology) included 245 presentations, with more than 850 exhibitors, demonstrators, and assistants to explain them to the physicians, nurses, students, and technicians who passed in steady streams through the somewhat crowded, but well arranged fourth floor of the Palace, from 8:30 A.M. to 6 P.M. every day.

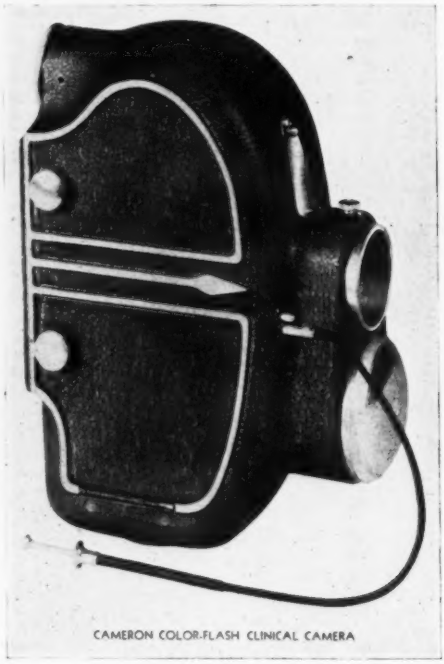
There were not so many big and elaborate clinic shows as in some former years, and that gave the individual exhibitors of moderate means a break. The big, practical demonstration of the treatment of fractures, occupying six spaces, was a feature, as usual; and there was a highly instructive and practical exhibit, occupying four spaces and showing the anatomy, pathology, general examination and roentgenologic technics, and the physical therapy treatment of *lame backs*, prepared by a committee consisting of Drs. F. R. Ober, of Boston (Chairman); C. E. Bagley, of Ann Arbor, Mich.; J. A. O'Reilly, of St. Louis; Arthur Steindler, of Iowa City; and P. D. Wilson, of New York, with a corps of 56 demonstrators, working in shifts, so that every visitor could get all the information he wanted. This one show would have paid any active general clinician for attending the meeting, if he had seen and heard nothing else.

Motion pictures were run continuously and simultaneously, throughout the week, in the exhibits on heart disease, nervous and mental disease, and dermatology and syphilology; and the Medical Film Guild was showing continuously, on the third floor, a collection of teaching motion picture films, many of them in color and with sound, for the use of medical societies and other instructional groups, with experts on hand to answer the personal questions of doctors who want to make their own medical and surgical films. All these were in addition to the films which were shown by several of the technical exhibitors.

In Group I (original investigations), the gold medal was awarded to Drs. C. B. Huggins, Philip Clark, and W. W. Scott, of the University of Chicago, for their demonstration of experimental benign hypertrophy of the prostate in dogs. The silver medal went to Drs. J. R. Paul and J. D. Trask, of Yale University, for their presentation of the clinical and geographic features of a rural epidemic of poliomyelitis. And Drs. C. F. and R. C. Nelson, of Beverly Hills, Calif., received the bronze medal for their exhibit of bone metabolism.

In Group II (excellence of presentation and correlation of facts), Dr. Norman Treves, of Memorial Hospital, New York, was given the gold medal for illustrating the significance of the bleeding nipple. Dr. A. H. Logan, *et al*, of the Mayo Clinic, carried off the silver medal for their showing of polyps of the colon and rectum and what can be done about them; while the bronze medal was awarded to Dr. W. H. Wright, of the National Institute of Health, Washington, D.C., for his presentation of the public health aspects of trichinosis.

Among the many other exhibits, every one of which was of deep interest to hundreds of the doctors who were present, the one which impressed me most, in my somewhat superficial survey of the complex and varied lay-out (I am constantly handicapped, at these meetings, by the fact that I am not triplets), was that by Drs. F. M. Pottenger, Jr., and D. G. Simonsen, of the Pottenger Sanatorium, Monrovia, Calif., showing, by means of charts, photographs, roentgenograms, and motion pictures of cats and children, that symptoms closely resembling those of allergy (including typical asthma) can be produced by the nutritional deficiency resulting from the feeding of cooked meat instead of raw meat (in cats) and other foods, in addition, in children. The demonstration was decidedly dramatic.


CAMERON COLOR-FLASH CLINICAL CAMERA

Courtesy, Cameron Surgical Specialty Company.

The Technical Exhibit

At former meetings the technical exhibits have often been scattered in various rooms and corridors (Atlantic City has, I believe, the only auditorium where this great show can be set up all in one piece, as it were, like a town), and the exhibitors who were not right in the midst of things have groused a good deal. Here there were three floors of it, and the ones on the third floor seemed as busy and as happy as those on the first.

More than 250 firms had space in this show, and every booth had something worth seeing, but as it would take a book to tell the story of them all, I shall merely try to mention, briefly, some of the things of the most general interest that were *shown for the first time*, so far as I know, and a few of the most striking features, even if they were not wholly new. If any feel slighted, I hope they will remember the limitations of human endurance, powers of observation, and memory.

The Squibb people, in their big display, had four small laboratories set up, each fully equipped for carrying out one test, and demonstrations of these four tests (determination of prothrombin clotting time; pneumococcus typing; estimation of bismuth excretion; and testing estrogenic activity by the vaginal smear) were going on all the time, for the benefit of those interested in technics. They also had a set-up to demonstrate the static and explosion hazard in using volatile anesthetics, and how to obviate it.

Courtesy, John Wyeth & Bro., Inc.

OSLER AT OLD BLOCKLEY

The Cameron Surgical Specialty Company was featuring the new Cameron-Schindler gastroscope, which seems to be about as nearly fool-proof as such an apparatus can be, and the *color-flash clinical camera* (pictured here), on which they have been working for several years, and which will take black-and-white or color pictures, not only of the outside appearance of people, but of any part of them which can be seen through any sort of direct-vision endoscope. The results obtained are truly remarkable. Here is something new for the camera fans who truly yearn to record their cases *fully*, and a valuable addition to the armamentarium of teachers.

An innovation in surgical dressings is *Nu-Hesive*, which combines the virtues of the ordinary gauze bandage (straight or bias woven) with those of the stick-only-to-itself rubber bandages, which have been in use for several years. The possibilities of this new dressing material are extensive and every physician who ever dresses a wound will be wise to look into them.

Lederle Laboratories offered their new preparation of Bulgarian belladonna root (*"Bellabulgara"*) which, reports indicate, seems to be the best thing yet for the treatment of postencephalitic parkinsonism.

Shark Industries, Inc., had an interesting booth and handed out shark teeth (while they lasted) to all registrants, in order to attract attention to their *shark-liver oil*, which carries a high content of *natural* vitamin A, with almost no vitamin D, thus offering advantages in certain cases.

Dr. Paul Roth, of the Battle Creek Sanitarium, was demonstrating his fascinatingly complex apparatus (not yet available commercially) for giving *electro-kinetotherapy*, or passive exercise which simulates the active type as closely as possible.

Cerevim Products is putting up vitamin B_1 in tasty little cookies (*Betamin Wafers*), each containing 100 international units of thiamin chloride, so that one gets a proper supply in the guise of food, rather than medicine.

The Depuy people have a new and clever apparatus (the *Littig Nail Guide*) for nailing fractures of the neck of the femur (using solid nails) with certainty and dispatch.

John Wyeth gave us the first showing of the second (the first was "Beaumont and St. Martin") of Dean Cornwell's splendid paintings of pioneers of American medicine—"Osler at Old Blockley." Here the greatest of medical teachers is shown, seated under the trees in the yard of the Philadelphia General Hospital, taking the history of a patient, while interns (*in blue uniforms*, like those of Civil-War soldiers) and nurses stand about drinking in instruction.

All who treat gynecologic patients were (and should be) interested in the new *Medipax* tampon-suppositories, which use the well known and convenient features of Tampax menstrual protection to apply a vaginal tampon, neatly combined with a glycero-gelatin suppository, medicated with Metaphen or Merthiolate. The convenience and therapeutic value of this arrangement are readily apparent.

The Oldsmobile people had one of their newest cars on display, and gave every doctor who registered with them a raffle ticket on it. I haven't learned the name of the lucky man.

The Herz-Lasker outfit showed their direct-writing electrocardiograph (now available commercially) with several improvements which make its performance even more remarkable. Anyone who expects to buy an apparatus of this type should *look* at this one before buying any other.

There were two or three other people who had attractive-looking new gadgets, but had no literature about them. I registered and asked them to send it, but they have, so far, failed to do so, and thus lost some free advertising.

Here follow abstracts of a few of the papers presented at the general and special sessions.

HISTAMINE HEADACHE

By Bayard T. Horton, M.S., M.D., F.A.C.P., Rochester, Minn.

Headache is the commonest human physical complaint, and probably has been so from earliest ages, but since it is a symptom of a wide-variety of disease states, it is by no means always amenable to the same treatment.

There is a fairly common type of periodic headache which, up to now, has not been recognized as a clinical entity. The pain is unilateral and always on the same side in the same patient, cases being about equally divided between the two sides; is so excruciating that many patients have to be watched for fear of suicide; and may come on at

any age and continue indefinitely. There is no nausea or vomiting and no "trigger zones," as in migraine, nor can it be brought on by mechanical stimulation of nerve endings, like tic douloureux. It may be called *erythromelalgia of the head*. Hitherto, no treatment has given any certain or definite relief in these cases, over periods as long as 20 years or more, so anything that will cause improvement demands respectful attention.

The attacks come on suddenly (sometimes 5 or 6 times a day), with clock-like regularity; last from 30 minutes to an hour; and cease suddenly. They are most common at night, especially an hour or two after falling asleep. They are sometimes brought on by taking alcohol, and can always be initiated by injecting an ordinary therapeutic or diagnostic dose of *histamine*, and relieved, promptly, by giving epinephrine solution, 1:40,000, by the intravenous drip method, and more slowly, by an oral dose of Torantil (*histaminase*); but these drugs appear to be merely palliative.

An attack begins with a sensation of prickling or tingling, promptly replaced by exquisite pain in any part or the whole of the affected side, so that the patient grasps his head in his hands and writhes in agony. Sweat breaks out on the supraorbital region; lacrimation occurs rather regularly on the affected side; and frequently scleral injection, swelling of the lower eyelid, or both are seen. These symptoms subside when the attack ceases.*

In 72 cases of this condition, which have been treated with *desensitizing doses of histamine*, followed up with maintenance doses of 0.1 mg., injected twice a week, the favorable results have been so regular that I consider histamine to be as specific, in these cases, as insulin is in diabetes.

These studies suggest that there may be a far wider therapeutic field for histamine than we have imagined.

SPONTANEOUS HYPOGLYCEMIA

By Jerome W. Conn, M.D., Ann Arbor, Mich.

Spontaneous hypoglycemia is not the same thing as hyperinsulinism. The latter is merely one of the causes of the former, of which there are several others, including liver disease, deficiency of the anterior pituitary secretion, renal glycosuria, etc. The most important causes of hypoglycemia are, however, organic and functional hyperinsulinism and liver disease, which are present in 80 percent or more of the cases.

If the fasting blood-sugar level is below 50 mg. percent, we may suspect *organic* hyperinsulinism or liver disease; and if restriction of carbohydrates in the diet brings the figure down to 40 mg. percent, it is probably the former.

In all these cases, we should make tests of the fasting blood sugar, the dextrose tolerance, and the liver function. Differences in the dextrose tolerance curves are frequently of diagnostic value. Diet promptly affects this curve in both types of hyperinsulinism, but not in liver disease (ascending hepatitis from an infected gallbladder). *Organic* cases of hyperinsulinism are *progressive; functional* cases are not.

In cases of organic hyperinsulinism, medical treatment is generally unsuccessful, though adrenalin may be tried and sometimes does good, so it is frequently expedient to remove some of the islet tissue from the pancreas surgically; and in hypoglycemia due to ascending hepatitis, cholecystectomy often brings relief.

In most of these cases, however, surgery is not indicated, and in some cases where an operation offers promise of help it is not successful.

All these cases require medical management, of which there are three possible types: (1) substitution therapy; (2) administration of insulin antagonists (epinephrine; posterior pituitary extracts?—Ed.); and (3) a diet arranged to compensate for the lack of storage or fast burning of carbohydrates, or to decrease the production of insulin—a high-protein or low-carbohydrate diet, or both.

PANCREATIC TISSUE EXTRACT IN ANGINA PECTORIS

By James G. Carr, M.D., F.A.C.P., et al., Chicago

Because the symptoms of angina pectoris are largely subjective and are influenced, favorably or unfavorably, by such a wide variety of conditions, many of which seem to be unpredictable in certain cases, it is extremely difficult to form a reliable estimate of the results of any particular treatment.

As yet, the therapeutic use of such complex substances as tissue extracts is almost wholly empiric; but in the 21 cases of angina which we have treated with a deproteinized extract of pancreatic tissue prepared by Sharp and Dohme, our opinions are based upon carefully controlled studies of the relationship between the treatment and the anginal attacks, and also the threshold of their production.

We believe that, in cases where the presently recognized methods of treatment prove unsuccessful in giving adequate relief, injections of this extract offer a definite hope of amelioration.

In the rare cases of angina pectoris which are not relieved by rest, pancreatic tissue extract, in doses of 1, 2, or 3 cc., injected 2 or 3 times a week over long periods of time, as we give insulin in diabetes, has produced distinctly promising results.

KIDNEY EXTRACTS BY MOUTH IN HYPERTENSION

By Drs. Arthur Grollman, J. R. Williams, Jr., and T. R. Harrison, Nashville, Tenn.

After a number of experiments, we have succeeded in preparing concentrates from kidneys which, when given *by mouth*, to rats, definitely diminish the effects of adrenin and other pressor substances given subsequently by injection.

When given to normal rats, these concentrates do not reduce the blood pressure; but their oral administration to rats with renal hypertension, causes a distinct reduction in the blood pressure. Similar results have been seen in dogs suffering with hypertension caused by deficient circulation in the kidneys.

In some instances, the hypertensive animals have become ill, and in a few cases have died just as the blood pressure was coming down, suggesting that it may be dangerous to reduce high blood pressures to the more or less arbitrary "nomal" level. Moreover, these deaths, *in animals*, may have been due to impurities in the extracts, as no fatalities have occurred in the few human patients upon whom preliminary studies have been made.

It must be remembered that this work is still in the experimental stage, and that most of it, so far, has been done on animals. Our studies seem to indicate that these extracts are specific for the kidney, and the results on human patients have been encouraging.

(*To be continued*)

*It has been suggested that this condition be called *Horton's Syndrome*.—Ed.

A Living for the Doctor

The Business of Medicine and the Art of Living

*

Associate Editor: Ralph L. Gorrell, B.S.M., M.D., D.N.B.

Official Remedies

THE word, pharmacopeia, is of Greek origin, and originally meant, "to make or prepare medicine," or "the art or business of preparing medicines." In that sense it was used in the early Greek writings; but as the title of a book dealing with this subject it goes back no further than the beginning of the sixteenth century.

The ancients had no books which can accurately be compared with our modern pharmacopeias, but from very early times there were volumes in Egypt, India, Greece, Rome, Arabia, and Persia, which devoted a good deal of space to the compounding of drugs.

In medieval Europe, the art of pharmacy reached its highest point in Italy, but a number of personal and local formularies were published, which had a more or less wide vogue. Under the modern definition ("A work, published by some recognized authority, for the purpose of securing uniformity in the kind, quality, strength and composition of the remedies used in the practice of medicine"), the first pharmacopeia in Europe was the "Antidotarium Florentinum," published in 1489.

Today, most, if not all, of the progressive countries have their own official pharmacopeias. The first one in the United States was published at Philadelphia in 1778, for the use of the Military Hospital at Lititz, Pennsylvania. The first official "Pharmacopeia of the United States" was published (in both Latin and English) in December, 1820, and since then has been revised, by a special Pharmacopeial Convention, every ten years. The revision of 1840 (published in 1842) dropped out the Latin version.

The necessity for an official pharmacopeia is beyond dispute or question, but "large bodies (such as Pharmacopeial Conventions and other groups of recognized or self-constituted 'authorities') move slowly," and their deliberate action has been wholly inadequate to keep pace with the tremendous rush of discovery and invention in the fields of chemistry and pharmacology, which had its inception about the beginning of the twentieth century. This fact has been recognized by the publication of such official or semi-official works as the "National Formulary" and "New and Non-official Remedies."

But even these newer and more flexible books are constantly more or less behind the march of laboratory and clinical research, partly because of the complex fabric of personal and political factors which enter into their compilation, and the physician who would confine himself strictly to the use of the drugs included in them, would, at times, find himself decidedly handicapped in caring for his patients.

Recently a rather active campaign has been carried on by various societies and semi-official bodies, to induce medical men to restrict themselves in the way just mentioned, and it may not be amiss to give a thought to the results which would follow if this campaign should prove fully successful.

The first and most important would be the destruction of the great pharmaceutical manufacturing concerns, to whom we are indebted for the larger part of the remedies which have been added to our armamentarium during the past two or three decades. In this connection, it should be remembered that a considerable part of the laboratory and clinical research which is being conducted at our Universities is sponsored and financed by one or another of the leading pharmaceutical houses.

If this epoch-making work were cut off, who would carry it on? The large endowed research institutions are, as a rule, deeply involved in red tape and lack the incentive of personal reward which, at present, seems so important a factor in progress. The national and local associations of pharmacists, whose activities are, no doubt, worthy and worth while, have not, so far as we are aware, made any noteworthy contributions to the advancement of the science and art of medicine, nor do they seem likely to do so, since they appear to have no obvious and valid reason for such a course of action.

The proponents of the restriction of therapeutic efforts by the sole use of official remedies put forth specious arguments; but the thoughtful physician who will give serious consideration of the question as to just who would be benefited and who harmed by such restrictions, will be likely to find himself and his patients in the latter category.

G. B. L.

★ Notes and Abstracts ★

A Library in a Suitcase

As a result of several years of experiment and study, in various institutions and under a grant of $15,000 from the Chemical Foundation, Science Service, Washington, D.C., has perfected apparatus and methods for reproducing pages of books or magazines on standard (35 mm.) moving picture film, so that it would be possible to carry an extensive library, in this form, in a suitcase. One volume weighing 25 pounds (twice the size of an unabridged dictionary) has, according to the *Literary Digest* for Feb. 6, 1937, been reproduced on a roll of film 4 inches in diameter. Of course, the reading of these microfilms requires special apparatus for their enlargement, but these devices can be purchased all the way from $1.50 up to $200. The service of preparing the films is relatively inexpensive. This arrangement will make it possible for those who have occasion to make use of rare books or documents in their studies to do so with a minimum of trouble and expense.

The Taxes You Pay

If one has been disturbed over the ever-growing tax burden in America during the last five years—and who hasn't been?—with what solemn misgivings must the future be regarded!

Under the double handicap of excessive taxation and unreasonable government interference, American industry has been deprived of the opportunity to recover from the worst depression in history.

The American system of private enterprise has been subjected to subversive assaults from socialistic planners within the Federal Government.

Social reforms, some worthy but most of them visionary and impracticable, have been foisted upon the country at terrific expense. Billions of dollars have been utterly wasted.

The Federal budget has not been balanced in a single year since 1930.

The Federal debt has reached 43 billion dollars, and soon will be close to 50 billion dollars.

So, taxes have increased at an alarming rate. And taxes may be expected to increase for several years to come—certainly until the Federal budget is brought into balance.

A survey of taxes imposed on American industry (183 representative organizations, including all lines, with 7,118,150 stockholders and 3,378,255 employees) for the 1939 fiscal year reveals that:

Taxes for 1939 amounted to more than one-half of the net earnings, before taxes;

Taxes for 1939 were equivalent to $611 per employee;

Taxes for 1939 equalled $329 per common stockholder;

Taxes for 1939, paid by industry, amounted to almost twice as much as was paid in dividends to owners of common stock.

What can be done to remedy this situation and to relieve American taxpayers of this crushing burden? Frankly, nothing that can be done now will bring immediate relief from excessive taxes, but steps can be taken now to insure future relief and to check immediately the trend toward national bankruptcy. There should be such an overwhelming demand upon the Washington Government for the elimination of unnecessary expenditures that even the most radical New Deal boondogglers would be deterred from further raids upon the Federal Treasury—raids that, in effect, reach into the pockets of every taxpayer in the United States. —Charles A. Segner, in *Investor America*, July, 1940.

An Invocation*

In entering upon the subject of the following Inquiries and Observations, I feel as if I were about to tread upon consecrated ground. I am aware of its difficulty and importance, and I thus humbly implore that Being, whose government extends to the thoughts of all His creatures, so to direct mine, in this arduous undertaking, that nothing hurtful to my fellow citizens may fall from my pen, and that this work may be the means of lessening a portion of some of the greatest evils of human life.

Benjamin Rush.

[In the preface to this book, dated October 12, 1812, Dr. Rush made the following far-sighted statement: "The author believes those diseases (of the mind) can be brought under the dominion of medicine, only by just theories of their seats and proximate cause."—Ed.]

★ Books ★

Humanity and the Universe

Gardner

THE PLAY OF CONSCIOUSNESS WITHIN THE WEB. *By* Edward L. Gardner. *London: The Theosophical Publishing House (through the Theosophical Press, Wheaton, Ill.).* 1939. *Price,* $1.75.

Based upon that abstruse and difficult, but truly fundamental, textbook of occultism, "The Secret Doctrine," this brief and well-made volume is so clearly and pleasingly written, with simple, homely illustrations to clarify points that are hard to grasp, that any man who is in the habit of using the impersonal level of his mind, and has the desire to do so, can understand the highly important material presented. Previous occult studies will make the process easier and more fascinating. It is the story of the development of human consciousness and self-consciousness, the will, and the creative mind.

Among the twelve chapter headings are such as: God and Man; Life and Light; Will and Mind; The Past and Future Now; etc. It is no book for triflers or the intellectually lazy ones, but for *thinkers* who have a real desire to *know*, it will yield a rich return upon the money, time, and effort expended in its study.

*This invocation constitutes the first paragraph of the first book on mental diseases published in America, "Medical Inquiries and Observations on the Diseases of the Mind." First edition, 1812.

The Seminar

Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussions of any or all problems. Discussions should reach this office by the 5th of the month following the appearance of the problem. Send your problems and discussions to The Seminar Dept. care CLINICAL MEDICINE, Waukegan, Ill.

Problem No. 8 (Surgical)

Presented by A. H. Follingstad, M.D., Springer, New Mex.

(See CLIN. MED. & SURG., Aug., 1940, p. 291)

RECAPITULATION: A primipara of 24 years, in the fourth month of pregnancy, was suddenly seized with excruciating, "tearing," continuous pain in the right side of her abdomen, relieved only by morphine. Her temperature was 98.0° F.; leukocytes, 14,000; moderate right-rectus rigidity; and a vague, smooth, ovoid mass in the right side of the belly, extending from the costal margin to 2 inches below the umbilicus, which could not be palpated bimanually. She had had an appendectomy 3 years previously. No other significant history or physical or laboratory findings, including urinalysis.

After 24 hours her temperature was 99.4° F.; leukocytes, 12,000. On the third day she developed abdominal distention and signs of sepsis.

Requirements: Suggest your tentative diagnosis, *giving reasons,* and state what further information you would need to make a definite diagnosis. Outline treatment.

Discussion by R. L. Gorrell, M.D., Clarion, Iowa

In the consideration of such a problem as this, the question of any complication of pregnancy must be ruled out, but no data are given as to the presence in the uterus of a fetus.

The pain is typically that of renal origin, and the mass, if posterior to the colon, might well be an enormously enlarged kidney (hydronephrosis or tumor). A kidney mass moves with respiration and usually may be replaced in its normal position. Air could be injected into the rectum through a catheter or rectal tube, using an Asepto or other syringe, until the colon was distended. The outlines of the colon should then be marked on the abdomen with a pencil or pen (preferably a skin pencil, obtainable at all surgical supply houses), and it is easy to determine if the mass arises from behind the colon, in which case it is probably the kidney or some other retroperitoneal tumor, which latter does not move with respiration. If the patient were given an intravenous injection of Neo-Iopax, the kidneys could be visualized on a roentgenogram.

On one occasion, I saw a primipara with a similar history who had a twisted ovarian cyst.

I am assuming that an "ovoid" tumor rules out any question of hepatic enlargement.

The negative urinalyses may or may not have diagnostic significance, as the ureter can be blocked on one side without the patient being aware of it. The intravenous urograms would settle this point also.

The ideal procedure to determine the nature of an abdominal mass, if other diagnostic aids fail, is *peritoneoscopy.* Although facility in its use requires experience, it furnishes positive diagnostic evidence, as contrasted to other methods. I have enjoyed using Ruddock's peritoneoscope during the past year, and only wish that I had had one previously.

Discussion by Lawrence Greeley Brown, M.D., Elizabeth, N.J.

In considering a diagnosis in Dr. Follingstad's case, we have but three positive factors upon which to make our guess:

1.—Pain, which was unremitting and tearing in quality.

2.—A definite mass in the right, upper quadrant, smooth, ovoid, and extending from the costal margin down to two inches below the umbilicus.

3.—A leukocytosis of 14,000.

Since there was a definite pathologic process in the right, upper quadrant, our diagnostic problem resolves itself into determining the nature of this lesion.

There is another positive sign, which Dr. Follingstad omitted, which is *mobility.* Did this mass move with respiration? It is always important to determine whether or not a mass is mobile or fixed.

Because of the location of the mass, I think of four diagnostic possibilities:

1.—Empyema or hydrops of the gallbladder.

2.—A greatly enlarged or a cystic right kidney.

3.—Regional obstruction of the intestines, which could be fecal.

4.—Tumor of the omentum or parietal wall.

Of these four possibilities, the gallbladder seems to me to be the most probable. As Dr. Watson, of New York, has aptly pointed out, pregnancy is the great efficiency test of a woman. It is possible for this young woman to have had gallbladder damage extending over a period of months, which flared up because of the associated pregnancy. If the doctor had told us whether or not this mass moved with the descent of the diaphragm, it would help clinch the diagnosis.

The pain suggests involvement of a hollow viscus. The leukocyte count, which was 14,000 at the beginning of the attack and fell to 12,000 after the administration of morphine, showed that a favorable evolution had set in, and this is not beyond the bounds of possibility for a diseased gallbladder.

To clinch the diagnosis, a dye should be given for the purpose of making a roentgenogram of the gallbladder and right kidney. In case of involve-

ment of either, the roentgenogram would be positive.

The treatment, obviously, would depend upon which organ was involved. If it proved to be the gallbladder, I should advise *draining*, but not removing the viscus at this time.

Since syphilis is capable of producing hydrops of the gallbladder, a Wassermann test should be made before considering operative treatment and, if it were positive, anti-syphilitic treatment might be all that would be required in the treatment of this case.

Solution by Dr. Follingstad

Obviously the diagnosis rests on the consideration of a pathologic condition involving (1) kidney; (2) gallbladder; (3) retroperitoneal space; or (4) fallopian tube and ovary.

The first three possibilities were ruled out, because of the history and absence of confirmatory evidence, and the latter possibility was taken as the pre-operative diagnosis. Torsion of the entire tube and ovary, from post-operative adhesions and the growing pregnancy, and torsion of a hydrosalpinx or cystic tumor of the ovary or broad ligament were considered. X-Ray studies revealed nothing of confirmatory value.

Operation was performed three days after the onset of illness, and a giant *hydrosalpinx* (15 x 20 cm.), including the right ovary, with a 360° torsion of its base, was found. This was removed in the usual manner, after aspiration to reduce its size. The mass extended up under the surface of the liver and was more in the right upper quadrant than in the lower. This location, together with the negative history, was the principal factor in making the diagnosis difficult, the unusual size making it impossible for the mass to occupy the pelvis or right lower quadrant, which were partially filled by the gravid uterus.

The patient had an uneventful convalescence; the pregnancy has continued uninterruptedly; and she is now (June 20, 1940) ready for delivery.

We Ask Pardon

In the August, 1940, issue of "C. M. & S." a *Seminar* problem discussion by Dr. A. H. Follingstad, of Springer, New Mex., appeared on page 290, and on the following page, a problem which he had submitted for discussion.

In the former connection, by some misunderstanding, we erroneously credited Dr. Follingstad with fellowship in the American College of Surgeons. He promptly informed us of our error, and we are, here and now, accepting responsibility for it, so that there may be no suspicion that the doctor made any claim to such a connection.

Problem No. 10 (Medical)

Presented by Ralph L. Gorrell, M.D., Clarion, Iowa

LESLIE M., age 25, married, complained of urgency of urination ever since birth. Bedwetting had been very frequent during his younger years, but is now rare unless he drinks heavily before going to bed. He must urinate about every hour or be uncomfortable. When the desire for micturition appears, he can restrain it only by strong efforts at sphincter control. At no time has pain, pyuria, hematuria, or any other objective sign been present. His health has been perfect in every way; he has had no serious illnesses; repeated urinalyses have been negative, over a period of years. He has never had a cystoscopic examination, but has had urethral and bladder irrigations with Argyrol, weak silver nitrate solution, and other medicaments, all of which increased the urgency for a time.

His wife is in good health, as also are his three children.

Physical examination was completely negative. The prostate gland was normal in size and nontender, and no discharge could be expressed from it. *Urinalysis:* Specific gravity, 1.022; negative tests for albumin and sugar; microscopic examination negative. On concentration tests, the specific gravity varied from 1.010 to 1.032. Blood study: Hemoglobin, 80 percent; red blood cell count, 4,100,000.

Requirements: Suggest a diagnosis, other examinations you would have made, and the treatment, *giving* reasons.

BREEDING AND THINKING

We have too long let breeding take the place of thinking. If our thinkers won't breed, and our breeders won't or can't think, we may well say, with all the fervor we can muster, "God save America."—ROBERT C. COOK, *in* Collier's.

NUTRITION

Knowledge accumulated by a student is mere excess baggage unless it changes his viewpoints, broadens his horizon, or serves as a tool for work. The study of nutrition may do all three.—JENNIE I. ROWNTREE, PH.D.

SCIENTIFIC STUDY

The scientific study of any subject is a substitution of business-like ways of making sure about it for the lazy habit of taking it for granted, and the worse habit of making irresponsible assertions about it. Science is nothing more or less than getting at facts and trying to understand them.—J. A. GOLDBERG, M.D., *in "Industrial Hygiene" (Oxford Medical Publications).*

Clinical Notes and Abstracts

Suspected Heart Disease*

It is usually possible to arrive at a fairly accurate diagnosis, in heart cases, after taking a thorough history. For example, two common complaints of patients who believe that they have heart disease are "weak spells" and "pain in the chest."

Attacks of Weakness

When a patient, who complains of attacks of weakness, lacks obvious evidence of disease of the heart and of the central nervous system, has a normal blood pressure, and does not act like a typical neurotic individual, four conditions must be considered:

1.—*Postural weakness:* Attacks of weakness and dizziness appear suddenly on first getting out of bed or on rising from a chair. The symptoms are mild and disappear after a few seconds, but if the patient attempts to walk before waiting a few seconds, he may stagger, or even fall. The diagnosis depends upon the history and upon having the patient spring up suddenly after lying quietly for an hour or longer. The treatment consists of abdominal exercises, daily walks, wearing a tight belt, and instructions to change positions slowly.

Carotid sinus syncope: This is a fairly common condition, although not recognized until the past few years. It consists of weakness and dizziness, lasting only a few seconds and appearing only when in the upright position, when the patient is standing, walking, or sitting, or when he turns his head. Pressure on the carotid sinus brings on an attack, thus confirming the diagnosis. Surgical removal of an enlarged lymph node or carotid body may be necessary.

Spontaneous hypoglycemia: Weakness, palpitation, anxiety, dizziness, irritability, sweating, and anginal pain may occur during a hypoglycemic attack. These attacks occur independent of posture, last from five minutes to an hour, and practically never come on within two hours after eating. The diagnosis is confirmed by relief obtained by a high-protein diet and a small amount of food taken 3 hours after each meal, or by a low blood-sugar curve.

Allergic dizziness: Patients who have severe recurrent attacks of dizziness, with nausea and weakness, should be suspected of eating some food to which they are allergic, especially if allergic diseases have been found in the individual or family history and if the attacks decrease after an elimination diet.

Pain in the Chest

Chest pain can be accurately evaluated by a careful history. A diagnosis of angina pectoris depends upon a history of pain in the chest, shoulder, or arm, which is brought on by walking or other exertion and is rapidly relieved by rest. Pain in the chest not related to exertion is usually not angina pectoris.

If palpitation precedes the pain, the physician can be fairly sure that the patient has either paroxysmal tachycardia or paroxysmal auricular fibrillation. Treatment of the arrhythmia may result in a complete cessation of "anginal" attacks.

If pain comes on three or more hours after eating, hypoglycemia may be the cause.

Left shoulder joint or muscle pain is brought on by moving the arm, is unrelated to walking up hills, and is aggravated by cold.

Pain relieved by belching, expulsion of flatus, or a bowel movement, and unrelated to effort, is gastric in origin. An air-swallowing patient may also have angina pectoris, and will then have *two* pains, one brought on by effort and relieved by rest, and the other brought on by distention and relieved by belching.

Epigastric pain which comes on when the patient lies down may be caused by a diaphragmatic hernia.

Tinsley Harrison, M.D.

Nashville, Tenn.

*South. M. J., Mar., 1940.

Treatment of Scarlet Fever

Five injections of Dick's streptococcus *vaccine*, given in increasing doses, gives perfect protection in 95 percent of cases, and 5 percent are partially immunized.

Sulfanilamide decreases the number of complications, especially otitis media and cervical adenitis. Apparently it is valuable for quick protection;

Platou gave 60 non-immune contacts sulfanilamide and reports that not one developed scarlet fever.

Scarlet fever *antitoxin*, in doses of from 6 to 10 cc. (6,000 units), is given intramuscularly for treatment. Patients should be tested for sensitivity prior to its administration. The earlier it is given after the onset, the better the results. In from 12 to 24 hours, the fever, in a severe case, will fall rapidly and the patients' general condition will improve.—H. J. JACOBSON, M.D., in *South. M. J.*, July, 1940.

The Closed Treatment of Wounds

BECAUSE it has been so successful in Spain and France, it is probable that the "closed" method of treatment will become popular for all types of wounds. All open war wounds are infected, and the presence of devitalized tissue constitutes an excellent medium for the development of pathogenic organisms. Mobility tends to increase infective complications.

Technic: Immediate debridement (removal of all devitalized tissue) and immediate immobilization in plaster of Paris splints. The use of antiseptics is unnecessary.

The objections to this method are: (1) the wound cannot be inspected (really an advantage, because infection cannot be introduced by dressing the wound at frequent intervals); and (2) the plaster casts become very smelly, but must not be changed for this reason.—*Brit. J. Phys. Med.*, June, 1940.

Physical Therapy in Facial Paralysis*

A SATURATED solution of potassium iodide (15 drops three times daily), given by mouth, or intravenously administered salicylates (as analgesics) and strychnine are of value in facial paralysis.

The affected eye is protected by keeping the cornea moist with castor oil; frequent washings with warm boric acid solution; and wearing glasses during the day, to prevent the cornea from drying, and a pressure bandage during sleep. The patient should be reassured that his condition can be improved by treatment.

Physical measures: To prevent the flaccid face muscles from stretching, adhesive tape is placed at the angle of the mouth, and supported by attaching two "Y" bands at the zygomatic bone and temporal region. Decongestion can be accomplished by cantharides plasters, hot moist applications, radiant heat, or conventional or short-wave diathermy, applied just below the parotid gland for thirty minutes, three times daily for two or three days, the frequency of application is regulated by pain and tolerance of the tissues.

After 10 days, testing with galvanic and faradic currents should be carried out. If no reaction of degeneration is obtained, recovery will occur in from 2 to 8 weeks. Complete reaction indicates that recovery will take from 3 to 12 months, usually with some residual paralysis. If a sufficient amount of recovery is not obtained *after six months of rigorous physical therapy, surgery should be employed.*

Diathermy or radiant heat is applied to the paralyzed side of the face for from 15 to 30 minutes. Muscle stimulation is given with the interrupted galvanic current from dry cell or rectified tube. The strength of the current should be just less than the amount required to cause a contraction of the muscles on the unaffected side.

On the first day, three contractions over the motor points are sufficient, and on following days, the number of contractions is increased, always keeping within the fatigue range of the muscle. After one or two weeks, the slow-sine wave is substituted, using from twenty to thirty contractions per minute. Where the faradic current can be tolerated, it should replace the sine current. *Gentle massage should follow all heat or electrical treatment. Overstimulation with electrical currents is harmful; they should be used expertly or not at all.*

M. K. NEWMAN, M.D.

Detroit, Mich.

*Arch. Phys. Ther., May, 1940.

The Duffy Trocoscope*

MY object is to present to the profession a new urologic instrument, the primary purpose of which is to provide a simple, rapid method of installing a self-retaining catheter suprapubically in the urinary bladder, but which, in addition, provides for suprapubic cystoscopy, in the hands of these men provided with Stern-McCarthy resectoscopes or

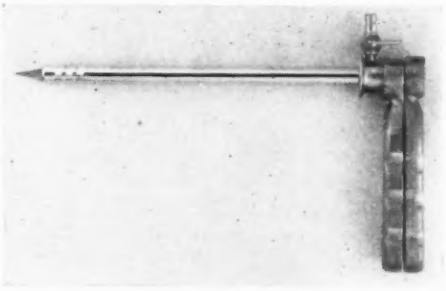


Fig. 1: The Duffy Trocoscope.

the common style panendoscopes. In addition to the convenience of the instrument, it affords much more efficient suprapubic drainage; permits renal and bladder decompression; circumvents the wound infections common in open surgical cystotomies, thus minimizing scar tissue in the area through which an operation may later be necessary; provides a water-tight, seepage-free drainage tube, and hence better hygiene of the patient; requires only 20 cc. of 2-percent procaine solution for anesthesia; and does not necessarily require hospitalization beyond the first day. Under adverse geographic or weather conditions it could be readily used in the office or at the bedside.

The Duffy Trocoscope (Fig. 1) is essentially a trochar type of instrument and presents the following features:

1.—It is made of stainless steel, which will minimize repairs and sharpening of the blades.

2.—Triple, hollow-ground blades give it a smooth, thin-edged cutting facility.

3.—The serrated muzzle holds the bladder wall firmly in apposition after it is within the bladder,

*J. Urol., Feb., 1940.

thus preventing slipping and leakage of urine alongside the barrel.

4.—The inlet valve on the first serration of the muzzle communicates with the outlet valve on the handle so that, immediately upon entering the distended bladder, fluid will come through the handle, to indicate that the instrument is within the bladder. The urine may be permitted to escape slowly either by applying the thumb to the outlet or by spreading the handles counterclockwise, which will then close the valve at the muzzle.

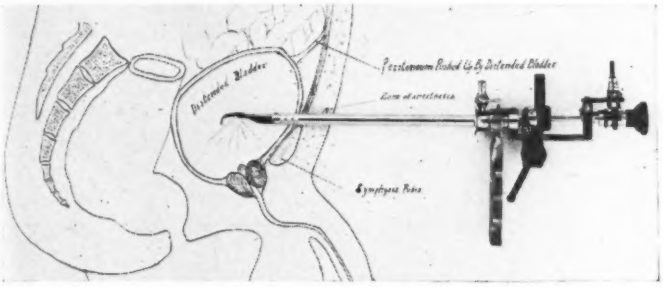


Fig. 2: Using the Stern-McCarthy Resectoscope, with the Trocoscope, for suprapubic cystoscopy.

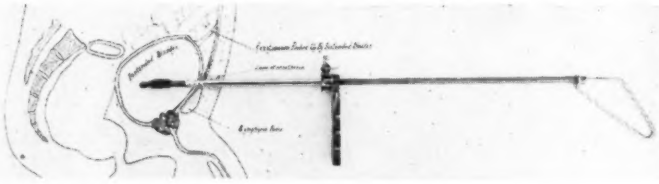


Fig. 3: Introducing a self-retaining catheter through the Trocoscope.

5.—The female hub is machined to receive a Stern-McCarthy resectoscope or the common panendoscope, for cystoscopic study of the bladder (see Fig. 2).

6.—The top of the hub is fitted with a water cock, for use as an overflow during cystoscopy.

7.—Both the water cock and the aperature in the handle are bored to receive a regular Luer tip, so that the procedure may be carried out without wetting the drapery.

8.—It has a split handle for stability in handling. The outer handle serves to operate the valve at the muzzle by merely rotating it on the fixed handle. The fixed handle on the barrel is a convenience in handling the instrument during cystoscopy.

9.—It has a special rigid stylet for introducing a self-retaining, gum-rubber catheter (see Fig. 3).

This instrument offers a means of establishing suprapubic drainage, with a minimum of surgical armamentarium, in remote and isolated places as well as in hospitals, and it would seem that, with this simplified procedure, we should have more frequent suprapubic drainages prior to prostatic surgery, thus bringing these patients to their final operation in much better physical condition.

J. James Duffy, M.D.

Los Angeles, Calif.

Psychiatry in General Practice

One cannot see the swift advances in psychiatry with the use of insulin and metrazol shock therapy, the rapidly accumulating knowledge of the functioning of the brain through electrocephalograms, the accumulating evidence of nutritional disturbances as a source of mental illness, without realizing with deep conviction that if there is a mental side to physical disease, then there is certainly a physical side to mental disease.

When one sees the speedy clarification of mental functions by the administration of nicotinic acid to a subclinical pellagra victim, or the comparatively quick reaction of the schizophrenic to insulin shock, then the inter-relation of body and mind ceases to be a mere theory and becomes a fact.

Psychiatry has come a long way since the days of Charcot and Janet. It is not immodest to say that psychiatry has much to offer the general practitioner, not merely in its application in the occasional "mental" case, but more importantly in its creating the *psychiatric point of view.*

This attitude of mind is important because it augments the advances in the clinic and laboratory, by considering the patient as a whole, *as a human being* in his social environment, and not merely subject to the stresses and strains as a collection of organs and tissue, temporarily in need of repair by surgeon's knife or chemicals. While psychiatry recognizes the value of the various therapies developed to combat the personality difficulties arising out of toxic or nutritional conditions, it does not for a single instant forget the inseparability of mind and body.

It is this point of view, sometimes known as "psychological medicine," which seems destined to be the medicine of the future. In a sense it is the completion of the circle—a return to the point where we left off in our sudden enthusiasm for newer things; it is a return from the microcosm to the macrocosm. From our study of the individual as a whole, we know that, behind many obscure conditions, may be emotional conflicts and tensions that may play an important rôle; we know that asthma, stomach ulcers, skin conditions, cardiac disorders, and other socalled physical diseases may actually have their roots in the emotions. The laboratory has offered ample confirmation of clinical observations on the devastation of fear and worry—the vicious circle of fear, fatigue, irritability, tension, and exhaustion.

We will soon abandon the superficial distinction we now make between mental disease and physical disease, in the clear knowledge that it is impossible

to separate the human organism into the "mental" and the "physical."

The general practitioner of medicine is outdated who considers psychiatry as an aloof specialty concerned exclusively with "asylums" and mentally ill persons. To cling to this attitude and to overlook the psychogenic aspects of many disease conditions is to refuse to treat the whole man, the practical effect of which may be to drive those who come to you into the willing arms of the naturopath, the chiropractor, and the quack.—C. CHARLES BURLINGAME, M.D., F.A.C.P., of New York City, in *Digest of Treatment*, Sept., 1940.

Houda's Goiter Vaccine

WRITING is not much in my line, and I have not been careful about keeping detailed records, but I thought the readers of CLINICAL MEDICINE AND SURGERY might be interested in my general impressions of Houda's goiter vaccine, after having used it for a number of years, in more than a hundred cases.

Exophthalmic goiter is not common in this part of the country, but we see plenty of cases of ordinary hyperthyroidism. Some of the patients have a tumor, and others not, but they *all* have tachycardia, sweating, shortness of breath, tremor, anxiety, crying spells, weakness, mild mental disturbances, and a tendency to high systolic blood pressure.

My success in treating these cases with Houda's vaccine has been too clear-cut and regular to be just luck. When 95 percent of such cases are, to all appearances, *cured* by a remedy, that is not a mere coincidence. A few of my patients have had relapses during the first year of treatment, but two or three injections of the vaccine have put them at peace with the world again.

Several patients have come under my care when they were given up by their regular physicians as hopeless, and seemed nearly moribund. But, after treatment with this vaccine, they have regained their health and strength, gone back to work, and *remained well.*

If Dr. Houda were any kind of a showman, or had an active press agent, he would be a famous man today.

J. B. WILKINSON, M.D.

Alliance, Ohio.

Exercise in Cardiac Disease

IN the long-standing, massive edema of congestive heart failure, there is always a concomitant or secondary renal insufficiency, and in addition all metabolic processes will be adversely affected. With the progression of the edema, further impairment of function will take place, including failure in the assimilation of food elements, even from a well-balanced diet. *The edema which is present after from 4 to 8 weeks of complete rest and the usual therapy* (digitalis, salines, and diuretics, including the organic mercurials), *will persist until the general physical condition of the patient is improved.* Anorexia, dyspepsia, exhaustion, and hopelessness dominate the picture. The only hope of prolonging life and restoring a small percentage of these patients to activity, although admittedly restricted, is through exercise *determined for the individual case.*

During the second week of treatment, simple deep-breathing efforts should be started (windows should be wide open), followed in a week by such leg exercises as have been employed in peripheral arterial disease, and general massage (except on varicosed legs). A few minutes of unsupported sitting up in bed, dropping the feet over the side of the bed, and finally, after eight weeks, even though the edema be present, the patient is helped out of bed, and seated upright in a chair with feet supported on a stool. Resistance movements, simple stretching, a few steps of walking—all may be employed later.

The patient should be on a high-protein diet (100 to 150 Gm.) as soon as it is tolerated, with fatty and starchy foods in small amounts and moderate salt restriction. Exercise tends to increase appetite. Vitamin B should be given. Elastic bandages may be applied to the legs before getting the patient out of bed.—A. A. SUSSMAN, M.D., in *Arch. Phys. Ther.*, June, 1940.

Treatment of Peripheral Circulatory Disease

IN all chronic vascular occlusions, theobromine or one of its salts has been given in 30 grain (2 Gm.) doses daily, combined with ¼ grain (16 mg.) of phenobarbital, for sedation. In the arteriosclerotic group, this medication was felt to be as appropriate for the coronary and renal vascular sclerosis as for that in the peripheral vessels. The occasional patient who could not take theobromine by mouth, because of gastric distress, was given keratin-coated theobromine or aminophyllin tablets. In patients with severe pain, morphine was avoided, except before amputations. Amidopyrin, in 5-grain (325 mg.) doses, with ½ grain (32 mg.) of codeine, was given three times daily, and seemed effective.

Intravenous injections of *typhoid vaccine* were used, in *small* doses. Starting with one million bacteria and slowly increasing the dose, in biweekly injections, until a course of 12 injections had been given, seemed beneficial in the acute inflammatory stages of *Buerger's disease* and *migrating phlebitis.* Sodium chloride has been given, by mouth, to patients who were suffering from inspissation of blood or decreased blood volume, so as to hold more water in the body. Alcohol is a good vasodilator (proved by oscillometric curves).

The use of 33-percent mercury ointment ("blue ointment," U.S.P.) has a definite effect on absorption of perivenous edema in migrating phlebitis of Buerger's disease.—G. DETAKATS, M.D., in *Ann. Int. Med.*, Dec., 1939.

The Macrocytic Anemia Patient

THE patient with macrocytic ("pernicious") anemia should be told that his position is much like that of the diabetic patient: that he can remain in good health as long as he has frequent check-ups, and that it is much more difficult to build up the blood than it is to carry on with unintermittent treatment.

I have obtained best results by combining the oral and injection methods of liver therapy. Each acts as a stop-gap for the other, so that, if the

patient is unable to come to the office, his oral medication will save him from a relapse; and if he forgets to take the capsules, his injections will keep the red-cell count up.

There is increasing evidence to make one believe that vitamin B plays a necessary part in the treatment of these patients. The symptoms presented by common macrocytic anemia are very similar to those of vitamin B deficiency (anorexia, loss of weight, asthenia, neurologic symptoms, lessening of vital functions). One must remember that the *oral method of giving vitamin B may produce no effects, yet its injection, in the same dose, may yield striking results.* I have been well pleased with the effects of Reticulogen (liver extract and vitamin B) in these cases.—C. R. Green, M.D., in *Hahneman. Mon.*, Oct., 1939.

The Treatment of Ringworm Dermatitis*

The more inflamed and acute the skin inflammation, in cases of ringworm dermatitis, the milder the treatment should be. Silver nitrate (¼ percent) or Burrow's solution (liquor alumini acetatis), diluted 10 to 1, may be used for wet dressings during the acute stages.

After the acute symptoms have subsided, this preparation should be used for the macerated, soggy type:

℞

Salicylic acid .....gr. xv— 1.0 Gm.
Benzoic acid .....gr. xv— 1.0 Gm.
Alcohol (90%) q.s. ad ....℥ i—30.0 cc.

Sig.: Apply twice daily with a cotton-wrapped match.

For the dry, horny type, Whitfield's ointment should be used:

℞

Benzoic acid .....gr. xxx— 2.0 Gm.
Salicylic acid .....gr. xv— 1.0 Gm.
Wool fat .....gr. xxv— 1.6 Gm.
White petrolatum q.s. ad ..℥ i—30.0 Gm.

Both of these remedies should be used long after the last traces of the disease have disappeared.

A case of eczema of the hand, of 15 years' duration, cleared up in six weeks after the patient was instructed to scrape the ringworm-infected *toenails* with the edge of a glass slide, following a hot potassium pemanganate foot bath. The allergic manifestations of mycotic infections of the feet are almost always on the hands, and are more resistant than the original focus. The great majority of hand lesions are dermatophytids (fungous-free) and should be treated with soothing remedies while the feet are undergoing active treatment.

The hands should be soaked in Burrow's solution, 1 to 10 in warm water, for one hour, three times daily. Overnight and between soakings, this combination should be applied to the hands: Burrow's solution, 10 parts; anhydrous lanolin, 20 parts; Lassar's paste, 30 parts. The feet should be soaked in a potassium permanganate solution (5 grains to a basin of hot water) for 30 minutes. Whitfield's ointment should be used between the toes overnight.

Harry Nieman, M.D.

Dayton, Ohio.

*J. Ind. St. M. A., June, 1940.

Treatment of Knee Sprains

Early *treatment of knee sprains:* Ice-water applications are kept on the knee for an hour, and then a compression bandage of sponge rubber is applied. The patient is kept at rest. When the bandage is removed, at the end of 24 hours, ecchymosis is evident at the margins of the rubber pads. If the injury is severe, with tearing of ligaments and the joint capsule, the early treatment is adopted, but a light, cylindrical cast is applied outside the compression bandage and the leg is elevated, on 3 pillows for 48 hours. Joint effusions will be rare under such treatment.

Convalescent treatment: Heat, either infrared radiation, diathermy, or an electric-light "baker," and *light* stroking massage are employed. At first, such treatments are given proximal to the injured area, and after five days, on the injured area. Between treatments, the sponge rubber compression bandage is worn, and weight bearing and physical activity is gradually allowed.

The patient is not allowed to return to sport or work until muscle tone has returned to normal and all tenderness has disappeared. Thereafter, he should carry out exercise with restricting strapping and padding. — A. Thorndike, M.D., in *Am. J. Surg.*, Jan., 1940.

Phenol Treatment of Pilonidal Cysts

The pilonidal cyst or sinus frequently becomes infected, with abscess formation. If a wide opening is made at this time and cauterized with 95-percent phenol, the walls of the sac may be sufficiently destroyed so that there may be no recurrence. This phenol treatment should be continued at intervals until the wound is entirely closed. At the time of the acute abscess, the walls of the sac are widely distended, and it is possible, in a certain number of cases, to secure a cure without any further surgical procedures. This is not likely if there are multiple openings from previous suppurations.—H. G. Hadley, M.D., in *Med. Times,* July, 1940.

[Cutler has recently reported the cure of several cases of pilonidal sinus by injecting a sclerosing fluid (Conroy's solution) into the sinus.—Ed.]

The Depressed Patient

Depressed persons in the first category say that they are down-hearted, discouraged, or feel down and out.

Those in the second category say that they have lost appetite and interest and are without energy; they are apt to feel worse in the morning and have a heightened interest in only one thing—discussions of their symptoms or their feelings.

The third-category patients dramatize their feeling of depression by regarding themselves as unworthy.

Spontaneous recovery always occurs. If one permits the patient to force one into prescribing treatment for minor deviations from the normal, one may never completely free himself. The institution of a dietary routine for gastro-intestinal hypochondriasis may lead to permanent dietary fads.—L. Hohman, M.D., in *Dis. Nerv. System,* June, 1940.

Diagnostic Pointers

Allergy in Recurring Coughs and Colds

● Children presenting the symptoms of recurring head colds, worse on arising and gradually improving, are usually allergic. Chronic nocturnal cough is another symptom of allergy. Such "colds" begin and end *abruptly*, after a period of hours or days. *Itching of the nose* is common. A child who has an allergic nasal condition will rub his nose *vertically*, from his forehead to his lip, while in the true infectious cold he will usually rub his nose from side to side.

Food allergy is a common cause until five years of age; from then on, dust, epidermals, and pollens become increasingly frequent causes. Skin tests and elimination diets are used in making the diagnosis. The offending foods are eliminated from the diet or the patient is desensitized by giving minute, gradually-increasing amounts of them. — J. A. RUDOLPH, M.D., in *Dis. Chest*, May, 1940.

Estrogenic Hormone in Papilloma

● Papillomas are common benign tumors of mucous membranes. In children, they frequently stop multiplying at the age of puberty. Local applications of estrogenic hormone in oil (Amniotin, 10,000 units) caused regression of papillomas of the larynx. — E. N. BROYLES, M.D., in *Bull. Johns Hopkins Hosp.*, May, 1940.

Toxic Goiter

● We make basal metabolism tests on all our patients, but since no one looks at them, no harm is done. The mischief the old goiters are doing to the heart is wholly unrecorded. Clinical sense is all that is needed, and does not leak oxygen.—A. E. HERTZLER, M.D., in *Miss. Val. Med. J.*, May, 1940.

Incision of a Peritonsillar Abscess

● Incision is usually avoided before suppuration has occurred in a peritonsillar abscess (quinsy). Usually from 3 to 5 days are necessary for proper localization. Inability to open the mouth is taken as a sure sign that the abscess has reached the point when it should be opened. Frequently the symptoms are most severe at the time when incision and drainage become necessary.—*E. E. N. & T. Mon.*, July, 1940.

[Removal of tonsils is practised by some otolaryngologists, who feel that the tonsil acts as a plug and holds pus back in the fossa.—ED.]

Painful Urination

● When a patient complains of painful urination, always examine the rectum. A certain percent of rectal carcinomas cause dysuria.—W. W. RIXEY, M.D., in *South. Med. & Surg.*, Apr., 1940.

The Viscerospinal Syndrome

● Pain and dysfunction may follow a disturbance of the skin and skeletal structures. The clinician has been so engrossed in the effects of the visceral malfunction and their outward manifestation, that he has neglected the skeletal structures with their disturbance reflected inward upon the viscera. The skin and muscles of the back and the spine, with its many joints, are common sites of trouble (myositis, rheumatic back, scoliosis, pelvic tilt). This is proved by relief of asthmatic attacks, ureteral and pyloric spasms, constipation, right lower quadrant pains, and anginal pains by treatment directed peripherally.—NEVILLE T. USHER, M.D., in *Ann. Int. Med.*, May, 1940.

Appendicitis in Infants

● Appendicitis in infants is associated with slight fever, a moderately high leukocyte count, moderate pain, and early vomiting. *Point tenderness* is usually found at or below McBurney's point, but may be anywhere from the flank to the pelvis. It is the single most important sign.—J. BRENNEMAN, M.D., in *J.A.M.A.*, Mar. 16, 1940.

Hemorrhoids and Cancer

● Most patients with hemorrhoids do not have cancer of the rectum, but *nearly every patient with cancer of the lower bowel does have hemorrhoids.* Fifty percent of carcinoma patients have had a previous operation or injection for hemorrhoids, without a rectal or proctoscopic examination being made. — W. W. RIXEY, M.D., in *South. Med. & Surg.*, Apr., 1940.

Sulfanilamide and the Leukocyte Count

● Sulfanilamide causes a depression in the number of white cells, even to the point of leukopenia. The action of sulfanilamide seems to be independent of the leukocytes, in that it does not produce an increase in their total number or in the proportion of polymorphonuclear cells. Agranulocytosis or granulopenia does not occur.—*E. E. N. & T. Mon.*, July, 1940.

Aspirin Allergy

● The reactions which occurred in 62 patients who were sensitive to aspirin (acetosal) were: Asthma, 42 cases; urticaria and angioneurotic edema, 16; vasomotor rhinitis, 5; abdominal cramps, 3; and purpura, 2. Four deaths following the use of aspirin are reported. Nasal polyps were found in a large number of aspirin-allergic patients. The asthmatic attacks precipitated by aspirin were usually severe, prolonged, and resistant to epinephrine and morphine.—A. BUCHSTEIN, M.D., in *E. E. N. & T. Mon.*, May, 1940.

Thumbnail Therapeutics

★

Severe Asthma

● After the injection of epinephrine, in severe cases of asthma, the next step is to give water, salt, and sugar. If the patient can drink a quart or so of liquid, hot or cold, in the form of tea, soup, lemonade, or even plain water, his condition will improve. If he cannot take such quantities by mouth, fluid must be given intravenously, in the form of 5- or 10-percent dextrose in physiologic saline solution. If 1 or 2 cc. of epinephrine (1:1000) are added to the infusion flask and thoroughly mixed, the results will be even better. At least one hour should be allowed for a liter of solution to run into the vein. In very severe attacks, blood transfusions from non-allergic persons are valuable. Bromides, chloral hydrate, and paraldehyde are helpful. Aminophyllin injections often are effective in the patient who has become adrenalin-fast. Oxygen, by face mask or tent, may be employed. — F. M. RACKEMANN, M.D., in *J.A.M.A.*, May 18, 1940.

Vitamin B in Narcosis

● In pathological sleep (as in encephalitis), and in narcosis, the intravenous injection of 50 mg. of vitamin B_1 (thiamin) will awaken the patient.—W. J. MCCORMICK, M.D., in *Med. Rec.*, Apr. 17, 1940.

Prostigmin in Delayed Menstruation

● Prostigmin is an effective method of bringing on the menstrual flow, when the woman is not pregnant. There is no harmful effect. From 1 to 3 injections of 2 cc. of Prostigmin resulted in menstruation in every case not proved pregnant by the Friedman or Aschheim-Zondek test. This drug is thus a combined treatment for menstrual delay and a therapeutic test for pregnancy.—SAMUEL SOSKIN, M.D., in *J. A. M. A.*, May 25, 1940.

Iodophthalein in Typhoid Carriers

● The oral administration of soluble iodophthalein was followed by the immediate disappearance of paratyphoid bacilli from the stool of a carrier. All previous measures had been ineffective. The same doses were used that are employed before taking gallbladder roentgenograms, and repeated once weekly for a month.—W. SAPHIR, M.D., in *J. A. M. A.*, May 18, 1940.

Glycine in Asthenia

● Glycine*, given in doses of 6 grams (90 grains) daily, in divided doses, is an effective remedy for relieving excessive fatigue and weakness.—F. M. ACREE, M.D., in *South. Med. J.*, July, 1940.

*The combination of amino-acids known as Aminoids (Arlington Chem. Co.) works even better.—ED.

Bulgarian Belladonna Root in Parkinsonism

● The most frequent sequel to epidemic encephalitis is parkinsonism. Atropine therapy is valuable, but the side-actions are objectionable. Extract of Bulgarian belladonna root, prepared in tablet form, (each tablet containing 0.4 mg. of alkaloids) was given to 24 patients. The most favorable effect was upon the muscular rigidity (immobile face, motor helplessness, loss of associated movements, abnormal postures), although there was some beneficial effect upon tremor and hypersalivation. — P. K. MAYBARDUK, M.D., in *Med. Times*, June, 1940.

Vitamin C in Insomnia

● In cases of intractable insomnia, from 400 to 500 mg. of vitamin C (ascorbic acid), given by mouth at bedtime, will usually produce sound and natural sleep. — FRANK WRIGHT, M.D., F.A.C.P., Chicago, Ill.

Hydrochloric Acid in Tonsillitis

● In cases of tonsillitis, from 6 to 20 drops of diluted hydrochloric acid (12.5 percent solution), in a cup of lukewarm water, are used every 30 minutes for gargling, after which, a few drops of the solution should be swallowed. For irrigation of the tonsils, a concentration of from 20 to 30 drops in a cup of water may be used. Less saliva and mucus are produced; the disagreeable taste is relieved at once; and there is a remarkable decrease in the number of bacteria.—N. GUNTSCHEFF, M.D., in *Wien. Klin. Wchnschr.*, Jan. 5, 1940.

Eczema of the Eyelids or Ear

● For eczema of the eyelids or adnexa, or of the external ear and meatus, this ointment will prove effective:

R		
Hydrarg. Ox. Flav.	0.15	(gr. 2½)
Zinc Oxide	0.75	(gr. 7½)
Soft petrolatum	15.00	(℥ 4)

Sig.: Keep the parts well annointed, especially at night.—*E. E. N. & T. M.*, May, 1940.

Chancroid

● In treating chancroid, the sore should be cleansed with hydrogen peroxide solution, and dressed with frequently-changed compresses of a 1:6.000 solution of potassium permanganate, or with iodoform powder. *Sulfanilamide*, given by mouth in divided daily doses of 120 grains (8 Gm.) for two days, and of 90 grains (6 Gm.) for four more days, is often very effective.—M. SULLIVAN, M.D., in *A. J. Syph.*, July, 1940.

New Books

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE, Waukegan, Ill., is accompanied by a check for the published price of the book.

THE DOCTOR'S STUDY

Books are the best defenses against disturbing, disagreeable mental and emotional, intrusions.—B. ABRAMSON.

Minor Surgery

Christopher

MINOR SURGERY. *By* FREDERICK CHRISTOPHER, S.B., M.D., F.A.C.S., *Associate Professor of Surgery, Northwestern University Medical School, Chicago; Chief Surgeon, Evanston Hospital. Foreword by* ALLAN B. KANAVEL, MD., F.A.C.S. *Fourth Edition, reset.* 990 *Pages; 639 Illustrations. Philadelphia and London: W. B. Saunders Company.* 1940. *Price,* $10.00.

THIS is the most practical minor surgery text available today. In it you will find all those handy, helpful pointers that you have seen in the literature in the past ten years, and have forgotten or cannot find when you want them, with hundreds of sketches showing how to treat injuries and infections of every type. Nothing is too minor to be considered in detail and, where possible, illustrated. Splinters under the nails, foreign bodies in the fingers, diagnosis and treatment of low back pains, treatment of tongue-tie and "lop-ears," removal of small cysts of the skin, and many others are discussed.

This volume cannot be recommended too highly for minor surgical conditions occurring from head to toes.

Endocrine Gynecology

Hamblen

ENDOCRINE GYNECOLOGY. *By* E. C. HAMBLEN, M.D., F.A.C.S., *Associate Professor of Obstetrics and Gynecology, Duke University School of Medicine; Gynecologist in charge, Endocrine Division and Sex-Endocrine Clinic, Duke University Hospital, Durham, North Carolina. Foreword by* J. B. COLLIP, M.D., *Professor of Biochemistry and Pathological Chemistry, McGill University, Montreal, Canada. Springfield, Illinois, and Baltimore, Maryland: Charles C Thomas, Publisher.* 1939. *Price,* $5.50.

THIS is a book for the general practitioner, in an over-written, over-stressed field. As both Hamblen and Collip emphasize, the results of the laboratory cannot be applied directly to the treatment of human beings, and alone, are of no decisive clinical value.

Not the least interesting portion of the book is the chapter on sex-endocrine principles, in which the author discusses general principles and lists those hormones which he has used extensively and successfully. He is careful to state that the omission of a product from the list does not imply that it is ineffective, but only that he has not used it. Such a description is of much more value to the occasional user of endocrine products, than to have all the various preparations listed, without adequate comment.

A complete resume is given of the newer knowledge of gynecologic growth and development, maturation, menstruation, gestation, and regression (climacteric).

The various procedures employed in making an endocrine diagnosis are fully explained. Sex-endocrine syndromes are considered in detail.

International Medical Annual

Tidy and Short

THE INTERNATIONAL MEDICAL ANNUAL. A Year Book of Treatment and Practitioner's Index. *By* H. LETHEBY TIDY, M.D., M.D. (OXON.), F.R.C.P.; *and* A. RENDLE SHORT, M.D., B.S., B.Sc., F.R.C.S. *Baltimore: A William Wood Book, The Williams & Wilkins Company.* 1940. *Price,* $6.00.

ALL busy physicians need reviews of current literature to keep them abreast of the times, and this Annual serves the purpose well. Although it presents the British viewpoint, it will be helpful to American readers, and contains a number of points that have not been stressed in this country. The abstracts and *critical* reviews of them, prepared by 35 experts, are arranged alphabetically, by subjects, for easy reference; and there is also a general index. Almost any general clinician will find it useful.

Biochemistry of Disease

Bodansky and Bodansky

BIOCHEMISTRY OF DISEASE. *By* MEYER BODANSKY, PH.D., M.D., *Director of the John Sealy Memorial Laboratory and Professor of Pathological Chemistry; and* OSCAR BODANSKY, PH.D., M.D., *Lecturer in Biochemistry, Graduate Division, Brooklyn College; etc. New York: The Macmillan Company.* 1940. *Price,* $8.00.

THIS is a new type of biochemistry text, written primarily for the practicing physician. Its chapters discuss various diseases (blood, heart, respiratory tract, kidney, digestive tract, liver and gallbladder, pancreas, adrenals, pituitary, thyroid, parathyroid, bone, muscle, male gonads, obstetrics and gynecology, nutrition, metabolism, neurologic and psychiatric disorders) from the clinical standpoint and gather material together for the ready perusal of the busy physician who wishes to learn the biochemical aspects of disease, but does not

have time to wade through the involved literature of physiologic chemistry.

For the physician who wishes to know more than rule-of-thumb methods, the discussions are of great interest. Those on anemia are especially valuable.

Nutrition in Pediatric Practice

Kugelmass

THE NEWER NUTRITION IN PEDIATRIC PRACTICE. *By* I. Newton Kugelmass, B.S., M.A., M.D., Ph.D., Sc.D., *Attending Pediatrician, Broad Street Hospital and Heckscher Institute, New York City; Consulting Pediatrician, Lynn Memorial Hospital, etc.* 183 *Illustrations. Philadelphia, Montreal, London: J. B. Lippincott Company.* 1940. *Price,* $10.00.

NUTRITION is not one of the phases of pediatrics; it is the foundation upon which all sound pediatrics must be built. Many of the illnesses of children are due to dietary abnormalities or may be cured by properly selected diets. For this reason, Kugelmass has produced a large volume on what appears, at first, to be a fairly small subject.

Section one discusses the physiology of nutrition, including types and locale of digestion and vitamin needs; section two presents the study of nutrition in the healthy infant and child, including various types of feedings; section three presents the clinical groups of illnesses which are primarily or secondarily concerned with diet—digestive, deficiency, metabolic and allergic diseases; infectious diseases; and regional diseases, beginning with those of the ear and nose, and working down through all the structures and organs of the body.

The book is tremendously practical and useful; diets are given in full and ready for use (in diabetes, anemias, etc.). The scientific presentation is complete even for the most exacting pediatrician.

Fractures

Watson-Jones

FRACTURES AND OTHER BONE AND JOINT INJURIES. *By* R. Watson-Jones, B.Sc., M.Ch. Orth., F.R.C.S., *Hon. Orthopedic Surgeon, Liverpool Royal Infirmary, and Robert Jones and Agnes Hunt Orthopedic Hospital, et cetera. Baltimore: The Williams and Wilkins Company.* 1940. *Price,* $13.50.

THE author speaks from the experience of treating 47,300 bone and joint injuries in the past 12 years, and this is, without doubt, the most beautifully illustrated book on its subject. Illustrations in color make dubious points clear. For example; the author feels that excision is the procedure of choice in fractures of the small bones of the wrist (such as the scaphoid or semilunar), if they have been deprived of their blood supply, as the inevitable necrotic fragment irritates the joint. A diagram shows the type of injury that partially, and the type that completely separates the arterial supply from the bone.

Clinical photographs, clear reproductions of roentgenograms, operative and pathologic sketches, are presented by the hundreds. The text is didactic, practical, and tremendously interesting. The physician or surgeon who cares for bone or joint injuries must have this book.

The Gallbladder and Bile Ducts

Walters and Snell

DISEASES OF THE GALLBLADDER AND BILE DUCTS. *By* Waltman Walters, B.S., M.D., M.S., *in Surgery, The Mayo Clinic, Professor of Surgery, The Mayo Foundation (University of Minnesota), and* Albert M. Snell, B.S., M.D., M.S. *in Medicine,* F.A.C.P., *Division of Medicine, The Mayo Clinic; Professor of Medicine, The Mayo Foundation (University of Minnesota.* 342 *Illustrations. Philadelphia and London: W. B. Saunders Company.* 1940. *Price,* $10.00.

THIS book concerns a common (possibly the most common) medical and surgical problem—disorders of the biliary system. It discusses every diagnostic and therapeutic aspect of this problem. It does not veil itself in the unknown, in the hope of inducing more referrals of patients.

Common and long-held fallacies in medical and surgical treatment are commented upon. Latest advances, including the use of vitamin K and other methods to increase blood coagulability, are fully presented. Surgical methods of treatment are well illustrated. The views held by the authors agree with those of the thoughtful leaders of medicine today, with the one exception that they feel that surgery is the procedure of choice. This point of view is natural in those who see a patient only once or twice in his lifetime, and who see the morbidity following prolonged medical treatment of gallbladder conditions requiring surgical care. That practically all gallstones should be removed, is the best consensus today, but many men feel that the "stoneless" gallbladder is a metabolic manifestation, which is little benefited by cholecystectomy.

Manual of Cardiology

Reid

MANUAL OF CARDIOLOGY; Clinical Methods and Case Histories as Problems for Study. *By* William D. Reid, A.B., M.D., F.A.C.P., *Assistant Professor of Medicine, Boston University School of Medicine; Cardiologist to the Massachusetts Memorial Hospital. London, New York, and Toronto: Oxford University Press.* 1940. *Price,* $3.50.

THIS unusual book endeavors to stimulate the interest and increase the knowledge of practitioners and students on heart disorders. It is in no sense a textbook, but rather an informal series of discussions, first on the general principles of diagnosis and treatment (both urgent and non-urgent), and second on actual case histories. Full details are given in the histories, which contain all the impedimenta usually found in the average patient's story, and relevant questions are asked at the end of each history, before permitting the physician to learn the results of special study or necropsy.

It is an excellent guide to proper diagnosis and management of cardiac patients. The section containing case histories provides a home-study course in practical heart diagnosis and treatment.

Functional Diseases of the Intestines

Singer

FUNCTIONAL DISEASES OF THE INTESTINES. *By* Gustav Singer, M.D., *Emeritus Professor of Internal Medicine, Vienna University; late Chief Physician in the Department for Internal Medicine, "Rudolfstiftung" Hospital, Vienna. Oxford University Press. London: Humphrey Milford.* 1939. *Price,* $2.50.

THIS small volume consists of a lecture delivered before the Hunterian Society. The author reviews, in 80 pages, the progress that has been made in the study of intestinal diseases of a functional nature (as distinct from cancer, dysentery, and other organic diseases) during the past fifty years. His view is comprehensive and includes studies that have been made, on both sides of the Atlantic, of material gained from surgical procedures, laboratory research, clinical studies, and roentgenologic investigations.

These topics are covered: Intestinal dyspepsia; disorders of motility and chronic diarrhea; peristalsis and its government; constipation; defecation; intestinal occlusion; meteorism; hormones and their stimuli; diverticula; auto-intoxication; allergy; real neuroses; diagnosis and differential diagnosis; and pathologic physiology.

Cyclopropane Anesthesia

Robbins

CYCLOPROPANE ANESTHESIA. *By* Benjamin Howard Robbins, B.A., M.S., M.D., *Associate Professor of Pharmacology, Vanderbilt University School of Medicine. Baltimore: The Williams and Wilkins Company.* 1940. *Price,* $3.00.

THIS small volume concerning "what may be considered, some day, the most perfect of all gaseous anesthetics," presents the pharmacologic

aspects and clinical applications of cyclopropane. By forbidding the use of morphine as premedication, apparently the author has found the cause of cardiac irregularities occurring under this anesthesia.

Full details, including charts and other data, are given concerning physiologic effects, administration, indications, complications, etc.; and summaries furnish brief reviews of pertinent points. The book is recommended to physicians and others giving anesthetics, and to surgeons who wish to use this form of anesthesia.

Chemotherapy and Serum Therapy of Pneumonia

Lord, Robinson and Heffron

CHEMOTHERAPY AND SERUM THERAPY OF PNEUMONIA. *By* Frederick T. Lord, M.D., *Clinical Professor of Medicine Emeritus, Harvard Medical School, etc.*; Elliott S. Robinson, M.D., Ph.D., *Director, Division Biologic Laboratories, Massachusetts Department of Public Health; and* Roderick Heffron, M.D., *Medical Associate, The Commonwealth Fund, etc. New York: The Commonwealth Fund; London: Humphrey Milford, Oxford University Press.* 1940. *Price,* $1.00.

THE Commonwealth Fund is performing a service to American medicine by making monographs available at less than the cost of publication. For only one dollar, a physician may obtain the latest information on the treatment of pneumonia with serum and sulfapyridine. This small volume is authoritative, complete, and of immediate use.

Introduction to Medicine

Sutton

INTRODUCTION TO MEDICINE, for Schools of Nursing. *By* Don C. Sutton, M.S., M.D., *Associate Professor of Medicine, Northwestern University Medical School; Attending Physician and Chairman of the Medical Division, Cook County Hospital; etc. St. Louis: The C. V. Mosby Company.* 1940. *Price.* $3.25.

SUTTON, a well-known internist of Chicago, has written a splendid book for the nurse. For ready grasp of the material, this type of chapter headings are employed: Diseases transmitted by blood-sucking insects; by animals; contagious diseases; diseases carried by food and drink; diseases due to inoculation and to acute infections.

Those physicians who have wondered what has become of the nurses who could give good, day-by-day care to sick people, and remain sympathetic and friendly, should read the introduction by a hospital superintendent (a nurse). It seems that nowadays the nurse is expected to acquire all sorts of medical knowledge.

The book appears to fulfill the purpose for which it was intended adequately.

Applied Body Mechanics

Lipovetz

APPLIED KINESIOLOGY; Work-Study Guide. *By* Ferd John Lipovetz, *Author of Applied Physiology of Exercise; The Teaching of Swimming; etc. State Teachers College, LaCrosse, Wisconsin. Minneapolis, Minnesota: Burgess Publishing Company.* 1939. *Price,* $2.25.

LIPOVETZ has contributed much to our literature on the modern teaching of those medical sciences which apply to physical education. This mimeoprinted text (well done by Burgess) covers body mechanics, a study of muscle action, analyses of movement, and scientific suggestions for coaching athletes. Clear sketches portray the appearance and actions of each individual muscle. The coaching suggestions alone are worth the price of the book, especially those which relate to the individual's balance before jumping or throwing the shot.

The "Acute Abdomen"

Cope

THE EARLY DIAGNOSIS OF THE ACUTE ABDOMEN. *By* Zachary Cope, B.A., M.D., M.S., Lond., F.R.C.S., Eng., *Surgeon to St. Mary's Hospital, Paddington; Senior Surgeon to the Bolingbroke Hospital, Wandsworth Common. Eighth Edition. London: Oxford University Press; Humphrey Milford.* 1940. *Price,* $3.75.

COPE is a surgeon who believes that diagnosis in acute abdominal conditions can be made as accurate as the diagnosis in acute chest conditions. To this end, he discusses the obturator test, the psoas extension test, the localizing diagnostic value of phrenic shoulder pain, the hyperesthesia caused by a distended appendix, the axillary area of resonance in cases of perforated ulcer, and other points of diagnostic value.

This little book is readily perused and is of great practical value.

Psychiatry

Henderson and Gillespie

A TEXT-BOOK OF PSYCHIATRY. For Students and Practitioners. *By* D. K. Henderson, M.D. (Edin.), F.R.F.P.S. (Glas), *Physician-Superintendent, Royal Edinburgh Hospital for Mental Disorders; Professor of Psychiatry, University of Edinburgh; and* R. D. Gillespie, M.D., (Glas.), F.R.C.P. (Lond.), *Physician for Psychological Medicine, Guy's Hospital, London; Examiner in Mental Diseases and Psychology in University of London. Fifth Edition. Oxford University Press. London: Humphrey Milford.* 1940. *Price,* $6.00.

THIS brilliant text, which is now passing into its fifth edition in thirteen years, is based upon the dynamic aspects of psychiatry. The patient is considered in the light of his environment and problems, rather than in the fixed grouping of a rigid classification of mental disease. For this reason, case histories are given at some length—a procedure which makes the book at once more instructive and more interesting.

Insulin and cardiazol treatments are given in detail. The section on psychopathic states has been rewritten. *The treatment of nervous children by play* is emphasized.

Sexual Disorders in the Male

Walker and Strauss

SEXUAL DISORDERS IN THE MALE. *By* Kenneth Walker, F.R.C.S., *Surgeon to the Genito-Urinary Department, Royal Northern Hospital, and to St. Paul's Hospital; and* Eric B. Strauss, D.M., F.R.C.P., *Physician for Psychological Medicine, St. Bartholomew's Hospital, etc., with a Foreword by* Sir Walter Langdon-Brown, M.A., M.D., D.Sc., F.R.C.P., *Emeritus Professor of Physic, University of Cambridge. Baltimore: The Williams and Wilkins Company.* 1939. *Price,* $3.00.

IT has been estimated that fifty percent of marriages are not sexually satisfactory to both partners, yet the average patient, who is quick to complain of an eruption or a pain, is reluctant to discuss his sexual difficulties.

The authors, approaching this delicate subject from the urologic and psychiatric standpoint, outline the important symptoms (impotence, premature ejaculation, priapism, masturbation, pollutions), the examination of the patient, principles of treatment (both medical, surgical and endocrinologic), and the psychic relationships, neuroses and deviations from the normal. *Practical, everyday* methods of handling these conditions are presented, with actual instructions to be given to the patient and his wife (this latter chapter is unique and useful). Any physician or surgeon will do well to have this brief book at hand for reference.

FOR DUAL ACTION

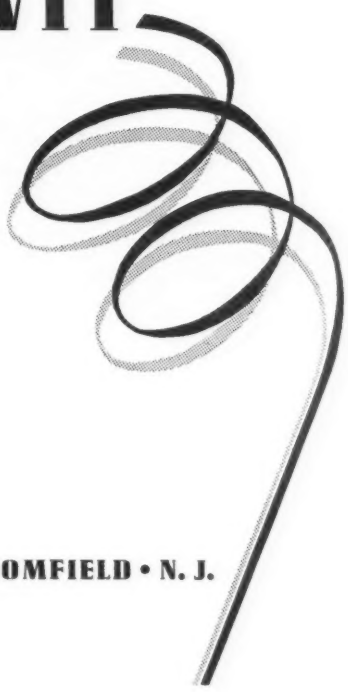
In functional constipation

BARAVIT is more than just an excellent "bulk laxative." It supplies reinforced vitamin B complex to follow up direct relief with ultimate restoration of more vigorous intestinal function. Constipation was shown to be the outstanding effect of B-deprivation in healthy persons studied at the Mayo Clinic. BARAVIT is effective for the dual deficiency of both bulk and B complex in functional constipation.

BARAVIT

After BARAVIT there is better stimulation of "the mass reflex," the stool is softer—gliding more comfortably along the intestinal tract without distress or urgency. The muscular coat acquires more vigorous function and movements occur at appropriate intervals with utter ease and a sense of complete satisfaction. Prescribe BARAVIT* for dual action, bulk for direct relief, B complex for ultimate restoration.

*Trade Mark Reg. U. S. Pat. Off.



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